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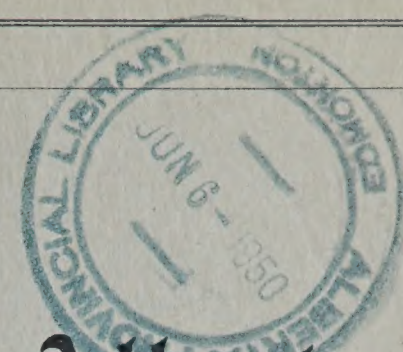

The Province of Alberta

PETROLEUM AND NATURAL GAS CONSERVATION BOARD

Application for Permission to Remove or cause to be removed Natural Gas from the Province of Alberta, under the Provisions of the Gas Resources Preservation Act by Northwest Natural Gas Company and Alberta Natural Gas Grid, Ltd.

I. N. McKinnon Esq., Chairman

D. P. Goodall Esq.

Dr. G. W. Govier

Session: June 2nd, 1950.

Volume 7.

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I N D E X

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JUNE 2nd, 1950.

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VOLUME 7.

June 2nd, 1950.

MR. NOLAN: Mr. Chairman and Gentlemen, I am sorry to inform you that Mr. Fenerty, who has been appearing as counsel for the City, was taken ill yesterday and will not be able to resume his duty here for some time, perhaps two or three weeks, but I received a message from Mr. D.P. McDonald yesterday afternoon and in that message I was informed that Mr. Fenerty was anxious that Mr. Dixon should be available for cross-examination at a time when Mr. Fenerty was able to conduct it. I only wish to say for the information of the Board that we are only too willing to make Mr. Dixon available at any time that suits the convenience of Mr. Fenerty and, of course, Mr. Dixon too, and I am sure that a satisfactory arrangement will be made.

MR. D.P. McDONALD: Mr. Chairman, may I speak to a matter. Yesterday when Mr. Nolan spoke to the matter of an adjournment on Monday it occurred to me that we would have a short sitting next week of some four days and it might be of assistance to all counsel and to the Board if all of the material that is to be introduced next week was made available today. What I had in mind particularly was the matter of routes and the costs that have been issued to the various parties. In order to evaluate those submissions it would be necessary to have the design of the pipeline and the operation and maintenance items, or the submission that deals with it. I was wondering if Mr. Nolan could make available today for the convenience of all counsel over the

Transcription.

Volume I.

Page 8th, 1950.

Mr. Molaro: Mr. Chairman and Gentlemen, I am sorry to inform you that Mr. Forsyth, who has been supervising a Scottish Tug City, has taken all speakers and will not be able to resume his duty here for some time. Another two or three weeks, but I received a message from Mr. Forsyth yesterday afternoon and in that message I was informed that Mr. Forsyth was sending that six, upon giving an overlight for change-communication at a time when Mr. Forsyth was able to address us. I only wish to say for the information of the Senate that we are over too willing to make Mr. Forsyth available at any time that will suit the convenience of Mr. Forsyth and, of course, Mr. Dixon too, and I am sure that a satisfactory arrangement will be made.

Mr. Griffith: Mr. Chairman, May I appeal to a minority. Two days ago Mr. Molaro spoke to the matter of an adjournment on Monday in order to be enabled to see what we would have a short sitting left. I ask that this and it might be of assistance to all concerned and to the Senate if all of the material that is to be considered at such a time has been available today. Since I was in this particularly was all manner of rumors are the order of that have been issued by the critics parties. In order to establish some substantiate it would be necessary to have the design of this airplane and the operation and maintenance thereof, or the Minister who deals with it. I was speaking to Mr. Dixon could take available today for one further week of it, consult over the

weekend the design and maintenance and operation submission which I understand he has available.

MR. NOLAN: Will you excuse me for just a moment until I find out what material is available. I appreciate, of course, Sir, that I am bound under the procedure to supply my friend with material at least 7 days before it is going to be used and I do not want to take any undue advantage of any rule or adjournment. As a matter of fact, next week is a short week and we feel that we have supplied our friend with advance copies of all material that will be used next week. That would bring us down to the end of routes and costs, which is one of the items on the agenda that I have placed before the Board, so that I do not think that my friends need worry about having to meet something next week that they have not had advance copies of and full information on in plenty of time.

MR. D.P. McDONALD: Mr. Chairman, the position I take is simply this, we have a route, we do not know what is going to be laid in that route. We have a statement of costs, we do not know what those costs are concerned with. Surely before I can evaluate and prepare my cost examination with regard to routes I have got to know what pipes are going to be laid in it, what compressors are going to be there, where they are going to be placed, those details. With regard to the cost I can not possibly evaluate costs without material. I am not concerned with an operating statement but this is something that is available and is necessary before we can proceed next week with the routes and costs application.

THE CHAIRMAN: I think Mr. McDonald's request is

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reasonable, Mr. Nolan.

MR. NOLAN: Well, we are completely in your hands, sir.

THE CHAIRMAN: Is the material available?

MR. NOLAN: It is available, sir. Yes, we will furnish them with the design brief today, sir, and of course, that means furnish all counsel, that is understood.

MR. C.E. SMITH: Might I suggest, sir, that the applicant continue as he is best advised, and if Mr. McDonald finds something lacking and wants to cross-examine about it or the Board thinks there is something lacking and they want it, let it be suggested to the applicant that it should be made available at a time that gives Mr. McDonald sufficient time to prepare his cross-examination. In other words, I do not think anybody anticipates now we are going to finish next week and he may have two or three weeks or more to prepare whatever he wants to prepare. The question of Mr. McDonald saying we want this and we want that may be good policy but I am doubtful if the applicant should be put in a position of having to oblige Mr. McDonald with something that he says he wants. If the applicant's case is not full enough the Board will probably take cognizance of that eventually. Surely we can arrange it without the necessity of the Board directing the applicant to submit something about costs by next Wednesday, about the cost of compressors or something. Surely that can be arranged between the two counsel. I am just suggesting I am doubtful if the Board should direct Mr. Nolan to give Mr. McDonald this or that or anything else. It is purely as a suggestion, sir.

Discussion.

THE CHAIRMAN: It would help the Board if we could get the brief, if it is available. We would like to have it.

MR. NOLAN: Then we will submit it to the Board. My understanding is then that we will submit it to interested counsel at a time which is 7 days before its presentation.

MR. D.P. McDONALD: Mr. Chairman, I am not sure that Mr. Smith appreciated what I said. I simply said that the material I now have is not of much use to me without the additional submission of the design. In other words, I am not prepared for next week on the material that is now filed and will not be prepared, and I sincerely hope we will save the time of the Board by an intelligent dealing of it next week.

MR. C.E. SMITH: Is that material not available?

MR. NOLAN: The pipeline design material is available.

MR. C. E. SMITH: Iwas trying to be helpful but all I did was throw a monkey wrench into it.

MR. NOLAN: My only observation, sir, is that I do not think there is a chance of reaching the pipeline design brief next week because there is a lot to be done before that, and the only thing I have to do under the procedure is supply my friends 7 days before its use with a copy of the brief.

MR. C.E. SMITH: Mr. Chairman, if it is ready I wonder why all of us can not have it? I did not realize that was the situation.

MR. NOLAN: I said I would provide it, sir, and I repeat, I will, but I thought counsel for the Board

was taking some point of my being directed to provide it. Apart altogether from the question of the Board and forgetting that there ever was one, I will make available today the pipeline design brief to all counsel concerned, and of course, to the Board. Now, may I proceed with the evidence, sir, and for your information I am going to deal first, if I may, with the Tacoma brief, after which I will deal with the Bellingham brief to be followed by the Wenatchee brief, and then Mr. Gellert, whom you will remember, sir, is the president of the Seattle Gas Company and also the president of the Pacific Coast Gas Association, will be available to not only state the policy of his company but to give us some information about the regulatory control which exists in the States of Washington and Oregon, which we think will be interesting from the Board's point of view. So, sir, I will call Mr. Merris, please.

FRANK R. MERRIS, having been first duly sworn, examined by Mr. Nolan, testified as follows:

Q Mr. Merris, for the information of the Board, your name is spelled M-e-r-r-i-s?

A Yes.

Q And you have been sworn, Mr. Merris?

A Yes, sir.

Q With what company are you connected?

A Washington Gas & Electric Company of Tacoma.

Q Washington Gas & Electric Company of Tacoma?

A Yes.

Q And what is your position with that company?

A I am Secretary and General Manager.

Q And in your brief you say something about the Company and its operation, but perhaps you could just tell us in a word what its function is.

A Well, the Washington Gas & Electric Company operates a water-gas plant in the City of Tacoma and serves from that about 6 towns including the capital city of Olympia. It also has gas-air plants in the cities of Everett and Chehalis.

Q You have been connected with that company for some time, Mr. Merris?

A For 20 years.

Q In answer to a request made by this applicant, you were good enough to prepare a brief on the operation of your company?

A Yes, sir.

Q Which contains certain estimates in the tables appended to it. I would like to have this document given a number, if I may.

SUBMISSION OF WASHINGTON
GAS & ELECTRIC COMPANY
PUT IN AND MARKED EXHIBIT 11.

Q And this document which has been marked Exhibit 11, Mr. Merris, is the written study that you made by request?

A Yes, sir.

Q Now I wish before you read that if you just make an explanation for me, if you would, please, about the divisions into which these tables are divided. We have had tables similar in kind before but we have not had divisions. It appears to me from my reading of it that your company is sub-divided in its operations. Would you like to say a word of explanation as to that?

A Well, this is divided into four divisions. The first division is the Tacoma division which, as I mentioned before, serves the towns of Tacoma, Ruston, Fircrest, Auburn, Sumner, Puyallup, Olympia, Dupont and Fort Lewis.

Q The Tacoma division tables are 2-A, 3-A and 4-A?

A Yes, sir.

Q And 5-A?

A 5-A, yes.

Q Then we come to the Olympia division, don't we?

A Yes.

Q And that is 2-B, 3-B, 4-B and 5-B, and then to the Centralia-Chehalis division, which is 2-C, 3-C, 4-C and 5-C, and finally to the Everett division, 2-D, 3-D, 4-D and 5-D, and that is the reason why there are more tables in your submission than were contained in the submission of the other companies?

A Yes, sir.

(Go to page 434)

Q Now, would you be good enough please to read to the Board your brief?

A

ESTIMATED MARKET FOR NATURAL GAS

in

TACOMA, OLYMPIA, CENTRALIA-CHEHALIS AND EVERETT, WASHINGTON

Washington Gas & Electric Company is a public utility company engaged in the production and distribution of manufactured and butane-air gas in the western part of the State of Washington.

Production

The production facilities consist of a water gas plant at Tacoma and butane-air plants at Everett and Chehalis. The aggregate daily capacity of the manufacturing plants is 6,420 MCF. The storage capacity is 2,230 MCF. The maximum day send-out of these plants has been:

	Maximum -- MCF	
	1948	1949
Tacoma (460 Btu)		
December 27	5,360	
January 11		6,825
Everett (1,000 Btu)		
February 6	304	
January 24		335
Chehalis (975 Btu)		
December 28	163	
January 26		188

Distribution

The distribution and transmission system aggregate 576.7 miles of mains. The Tacoma works supply the distribution system serving Tacoma, Ruston, Fircrest, Auburn, Sumner and Puyallup, together with Olympia, Dupont and Fort

Lewis which are supplied through a 6 inch connecting pipe line. The gas in this system has a heating value of 460 Btu per cubic foot. Everett and Centralia-Chehalis each have their own distribution systems and are supplied with butane-air gas of 1,000 Btu and 975 Btu, respectively.

Tacoma, the largest city served by Washington Gas & Electric Company, is about 40 miles south of Seattle and is located on Commencement Bay which is an arm of Puget Sound. The population of Tacoma and the surrounding area served by the Company, exclusive of Olympia, Dupont and Fort Lewis, was estimated to be 178,000 in 1949. Tacoma is an important deepwater port and is served by the same trans-continental railroads as is Seattle.

Olympia, the capital of the State of Washington, has a population of 16,000 and is located 30 miles south and west of Tacoma. Centralia and Chehalis are 35 miles south of Olympia and are adjoining communities with a combined population of 13,000, located on the main transportation routes between Seattle, Tacoma and Portland. Everett has a population of 35,000 and is 30 miles north of Seattle.

Estimates pertaining to the number of customers by classes of service are shown in Tables 2, 3 and 4. The estimated annual consumption and maximum day demands are given in Tables 5 and 6. Separate tabulations are presented for each of the four divisions, namely, Tacoma, Olympia, Everett and Centralia-Chehalis.

The estimates of future use of natural gas are

conservative, provided the gas can be sold at a price competitive with the price of oil. Naturally, the ability to secure large commercial and industrial loads, as well as interruptible customers, is largely dependent on the price at which natural gas is sold.

The larger industrial loads are within the vicinity of the present distribution systems and can be easily and quickly connected. Practically all of these potential industrial consumers have expressed an interest in the use of natural gas if available.

Weather information for Tacoma is given below:

Normal Degree Days	5,039
Design Temperature	10°F
Lowest Recorded Temperature	7°F

Years when temperatures approached Normal Degree Days:

Year	Degree Days
1948-49	5,459
1942-43	4,916
1936-37	5,031
1932-33	5,331
1931-32	5,089
1928-29	5,504

Q Now, turning to your Tables, Mr. Merris, and to Table 4A, which deals with the industrial consumption in Tacoma Division, I observe that the total annual firm sales are 527,619 MCF?

A Yes, sir.

Q And that the interruptible sales are 5,584,012, making a total of 6,111,631. What percentage of your total business does that represent, Mr. Merris, those industrial sales?

A About 89%.

Q 89%?

A Yes, sir.

Q Now, in this estimate for the 5th year and realizing that the percentage of your industrial sales is 89%, I ask you if you would consider the effect on this estimate of a cost to you, an average cost to you of 30 cents per MCF for natural gas?

A An average cost of 30 cents would be the maximum that we could pay to secure that class of business.

Q You are saying, as other witnesses have put it, that you could maintain this volume at 30 cents?

A Yes, sir.

Q And what would the position be at 35 cents average cost to you?

A Well, I feel we would lose 80% of the interruptible load.

Q And the interruptible load is important?

A Yes, sir.

Q For each of your divisions?

A May I correct that? I would say 90% of the interruptible load, which would be about 80% of the total load.

Q Yes. And when you are giving me these percentages you are telling me the situation with respect to the four divisions, aren't you?

A No, I am speaking only of Tacoma.

Q You are speaking only of Tacoma?

A Yes, sir.

Q All right. What about the 30-cent price in your next division of Olympia?

A Well, we could get business all right on 30 cents in

Olympia.

Q You could get business on 30 cents in Olympia?

A Yes. And the other divisions too.

Q And in the other divisions too?

A Yes.

Q All right. Now, at 35 cents average cost in Tacoma?

A On the Tacoma Division I would say that we would probably lose 90% of our interruptible load, which would be 80% of our total.

Q And what about the Olympia Division, and the figure of that is on Table 4B?

A Yes. Olympia - first, the industrial load is about 79% on the Olympia Division of the total load.

Q 79%?

A Yes, sir. And we would probably lose about 60% of that at the 35 cent rate.

Q Now, applying the 35 cent rate to the Centralia-Chehalis Division, and particularly looking at Table 4C?

A I do not think we would lose any business at 35 cents on this Division.

Q And lastly, then, in Everett?

A The Everett Division, the percentage of industrial is about the same as Tacoma, about 90%.

Q Yes?

A And we would lose at a 35 cent rate about 85% of that load?

Q Now, at the 40 cent rate, Mr. Merris, what would the effect be on your estimate at the end of five years in the Tacoma Division?

A Well, I would say we would lose practically all of the - we would lose all of the interruptible load and most of the firm.

Q Firm?

A Yes.

Q All of the interruptible and most of the firm?

A Yes, sir.

Q What about the Olympia Division?

A That would be true of Olympia.

Q What about the Centralia-Chehalis?

A I do not think we would lost it there.

Q You would not?

A No, I don't think it would make any difference.

Q You could maintain that estimated volume in that Division?

A Yes.

Q And, lastly, in Everett?

A In Everett we could not get the load at 40 cents.

Q I couldn't hear that, sir?

A We could probably only retain about - I would say we would lose all but 10% of the industrial load at Everett at 40 cents.

Q Now, the last Table in your brief, Table Number 6, simply sets out the estimated maximum day requirements in MCF in each of your four Divisions, and it is self-explanatory, isn't it, Mr. Merris?

A Yes, sir, that is correct.

Q Well, I think that is all I can usefully ask you, thank you.

.....

CROSS-EXAMINATION BY MR. D. P. McDONALD:

Q Mr. Merris, if you would just let me have your comments on this difference that I see between your estimates and the others that have been filed for the same general area,

and I am referring particularly to space heating. As I follow your estimates in Everett you have, your general classification of deliveries, at 119,000, and your space heating at 17,000?

A That is Everett you are speaking of?

Q Yes, Everett. That would be Table 2D, I think it is.

MR. S. B. SMITH: Number what?

MR. McDONALD: Table 2D.

Q Now, in the other four classifications you are also in the same position, your general classification is higher than your space heating, in some cases 2 to 1. I was just wondering if you had a different type of classification, or did you actually consider that you were not going to sell the space heating on a comparable basis to your General in the same manner that the other firms have evidently planned to do?

A I think that is true, yes, that we would not be able to. There is very little space heating in Everett at the present time, and most of the increase that we would get would be, I believe, in the General Use customers rather than in the Space Heating customers.

Q Now, is there any particular reason for that? I mean, do they use oil in space heating in Everett at the present time that could not be displaced by gas?

A Well, of course, the oil is used in Everett, I presume, about the same as it is in the other towns. I do not know frankly just why there is that wide disparity. I did not prepare these figures myself, and I do not know that I could answer that question.

Q What drew it to my attention, Mr. Merris, was that you have

a space heating load of 16,750 in Everett in your 5th year, and in Bellingham, which is comparable as to population,location and Degree Days,also comparable as to the number of customers at the present time - for instance, you have 1695 customers now, and Bellingham has 1,718, - and the Bellingham Gas Company estimates they can sell 34,800 MCF as contrasted to your 16,750. That is about two times what your estimate is?

A Well, I do not know if the same conditions exist in Bellingham as they do in Everett or not. It might be a more fertile field for space heating.

Q Well, if there waa an answer to that I would like it on the record. If you have no explanation, that is all right.

A I really have no explanation.

Q All right, thanks.

.....

CROSS-EXAMINATION BYMR. S. B. SMITH:

Q Mr. Merris, your company, I take it, has no choice as between the applicants before this Board for a permit to export?

A That is correct.

Q You are quite indifferent between them?

A Yes, sir.

Q Now, I suppose you and the officials under your supervision who prepared this brief, drew on your fund of experience in order to make the estimates which you have prepared here today?

A Yes,sir, that is correct.

Q Did you furnish the information that you have given here today to any representatives of Messrs. Ford, Bacon & Davis?

A Yes,sir.

Q When did you do that?

A Well, I do not recall exactly. It was either the early part of 1949 or the latter part of - the early part of '50 or the latter part of 1949.

Q And you and your officials must have spent a lot of time in preparing these estimates?

A Yes, sir, there was considerable time spent.

Q I would like to make some comparison, as I have with the others. Would you kind turning to your Table 5A and in that Table going to Annual Sales in MCF by Customer Classes. You show under the heading of "Domestic" over at the right-hand side in the year 1956, 510,203?

A That is 5A you are speaking of?

Q 5A?

A Yes.

Q The middle section, Annual Sales, and going over to the year 1956, at the righthand side, where you show Domestic Sales MCF if 510,203. Have you got that place?

A Yes, sir.

Q Now, just for the purpose of making comparisons, I point out to you, that for the same classification, Messrs. Ford, Bacon & Davis give a figure of 1,418,700. They nearly triple your estimate of Domestic consumption. You would say that was away high, wouldn't you?

A I would say that our estimates are conservative.

Q Under Commercial you give a figure there of 223,080 and they use one of 472,900. They are double yours?

A Yes.

Q Industrial firm you have 527,619, and they use a figure of 1,236,000. Again you would say that was away high?

A Yes, sir.

Q And you use a figure for firm interruptible under Industrial, or, rather, of Industrial interruptible of 5,584,012, and they give a figure of 2,000,000. You would prefer your figure?

A Yes, sir.

Q Now, I would like to turn for a comparison to Table 5B. Again I am going to Annual Sales in MCF by Customers Classes. In the year 1956 you give a figure for Domest c of 64,027. You have that figure?

A Yes, sir.

Q They use a figure of 141,300. Again, they more than double your estimate?

A Yes, sir.

Q And for Commercial you use a figure of 34,580 and they give one of 47,100?

A Yes.

Q And in Industrial Firm you use a figure of 82,414 and they use one of 410,000. That is a pretty wide variation, isn't it?

A Yes, that is a large variation.

Q You feel you should know those markets, you and your officials, better than anyone, I suppose?

A I feel that the figures we have submitted are as nearly accurate as we can get them.

Q Yes. You give a figure under Industrial interruptible there of 289,729. You are reasonably confident you could get that industrial interruptible load?

A Yes.

Q They make a blank there, they do not provide for any industrial interruptible in the Olympia Division at all.

A I see.

Q Now I would like you to turn to Table 5-c, under the same classific tion Domestic 1956 your figure is 47,846 and they use a figure of 120,000, 2½ times yours. Commercial, 19,370 and they use a figure of 40,000, over twice yours. Industrial firm, 42,253 and they use a figure of 40,000 and that is the only place where you and they are in agreement. Then I turn to Everett on Table 5d, and you show a figure of 126,064 for the year 1956 and they use a figure of 373,000. That again is a tremendous variation from your figure, is it not?

A Yes, sir.

Q Commercial, 38,020, and you have Industrial firm 90,182. At the present time you have no Industrial firm in Everett but you are confident you can obtain some industrial firm by the 5th year?

A Yes.

Q Now I suppose you have confidence in your own figures?

A Yes.

Q Did you meet, personally, any representative of Ford, Bacon & Davis?

A Did I meet?

Q Yes, did you meet any of them?

A Yes, sir, I met two of their representatives.

Q And how long were they in your district?

A I would say they were there three days.

CROSS-EXAMINATION BY MR. MARTLAND.

Q Mr. Merris, you say that these figures which you have given to the Board in the tables you have presented are conservative?

A Yes, sir.

Q But they could be higher, I mean, your estimates could be changed and they might go higher?

A They might, it is possible.

Q You are anticipating, as did the representative of the Seattle Company, a continued growth in population in your territory?

A Yes, sir, we do expect growth.

Q And I see by these figures that they have increased from the first, second, third, fourth and fifth full years, they are increasing all the time and I take it that you hope that increase will continue?

A Just as I say there.

Q And the throughput will be increased over that period?

A I would expect it would but not as rapid an increase as between the first and the fifth full year periods.

Q But you do anticipate that the growth will continue?

A The normal growth, yes.

CROSS-EXAMINATION BY MR. C. E. SMITH

Q Mr. Merris, I suppose you, like the gentlemen from the Portland and Seattle companies, before you enter into a contract for the supply of gas, would want to make sure that the reserves are adequate?

A Well, at least reasonably certain that they are adequate.

Q Reasonably certain, I think that is what they said. You would want to make reasonably certain that the reserves are adequate? You know, of course, that local needs must be taken care of primarily?

A Yes, sir.

Q And you also realize that your supply might at any time be

cut off by order-in-council or by order of the Lieutenant Governor?

A Yes, sir.

Q If local conditions demanded that?

A Yes, sir.

Q I will not go over all that again. Now, is there any natural gas being sold in your territory now?

A No.

CROSS-EXAMINATION BY MR. D. P. McDONALD.

Q Just a question or two. You are not at the present time selling any industrial gas?

A No, that is right.

Q But you do anticipate if you get natural gas that there will be a market for it for industrial use?

A Yes, sir.

Q Are there any large industrial users in your territory?

A There are three or four large industries we have in mind.

Q What are they?

A There is the Pennsylvania Salt & Chemical Company, Tacoma Smelter and Hooker Chemical Company.

Q Now I just wonder if you would turn to your Table 2D, the Everett Division?

A Table what?

Q 2D.

MR. NOLAN: "D" being for "D.P.".

Q MR. McDONALD: At the present time the Annual Domestic Sales, space heating, for your present manufactured gas you have a load of 5,500 Mcf. What price is that gas selling for, can you tell me that?

A I do not get that figure.

Q In the middle of the page, Schedule 2D, Annual Domestic Sales Mcf. Space Heating. And for 1950 you have 5500 Mcf.?

A Yes, sir.

Q That is your manufactured butane-air gas?

A Yes.

Q At what price are you selling that gas for now to the consumer?

A That is for general use?

Q No, for space heating?

A They do not have any special price.

Q For space heating there is no special rate? Then under what other rate do they come?

A There is a general domestic rate.

Q Yes, and what is that?

A It starts in at $2.00 and goes up to about $3.50. I do not know exactly but I would suppose they would come in somewhere between the two.

Q And for the natural gas you estimate that you could pay a rate between 30 and 40 cents for all your requirements? and what price do you expect, do you expect that your price will be less than $2.00 per Mcf. at any time, say, after 1952?

A It may be down.

Q Will it be down to below $2.00?

A I do not know.

Q Would it get down to a dollar?

A I do not know.

Q Would you raise it and say you would get it down to $1.50?

A We have given no thought to rates.

Q I do not want to ask you and I would hesitate to have you say something lower than you later will have to charge. Now I have an estimate that the supply to space heating customers will be 59,000 houses - well, I have my figures mixed and I will not go into that. There is only one other thing. Has your company any experience in the sale of natural gas?

A No, sir.

MR. NOLAN? If that is all, I will call the next witness if I may, please. Mr. Stewart Matthews. This witness, Mr. Chairman, is the President of both Bellingham Gas Company and the Wenatchee Gas Company of Wenatchee, Washington, and will present both briefs, the first being Bellingham.

STEWART MATTHEWS, having been duly sworn, examined by Mr. Nolan, testified as follows:

Q Mr. Matthews, you are President of the Bellingham Gas Company?

A I am.

Q We will deal only with that company for the moment, if we may?

A All right.

Q How long have you been associated with that company?

A Five years.

Q Are you a trained engineer?

A I am not a gas engineer. I had a Forestry and Logging Engineering education in the University of Washington.

Q How long have you been in the gas business?

A About 10 years.

Q And 5 of those with the Bellingham Gas Company, of which you are the President?

A Yes.

Q In a word, what is the function of the company, what does it do?

A It distributes propane-air 1000 BTU gas in the city limits and an area around Bellingham.

Q And how do you manufacture the gas?

A We are using propane-air gas with gas-air mixers.

Q Mr. Matthews, now you were asked by the applicant company to prepare a written brief for submission?

A That is right.

Q The document you have before you is the written submission you have prepared?

A That is right.

MR. NOLAN: Perhaps it could be given a number at this time.

BRIEF PREPARED BY THE BELLINGHAM GAS COMPANY IS NOW MARKED EXHIBIT 12.

Q That has now been given a number, Exhibit No. 12, and I would ask you to read that to the Board, if you please.

A <u>GEOGRAPHICAL CHARACTERISTICS</u>

The city of Bellingham is the county seat of Whatcom County, Washington. Whatcom County is bounded on the east by the Cascade mountains, and south by the Chuckanut range, the west by Puget Sound, and the north by the International Boundary.

Bellingham is a deep salt-water port. The city is 22 miles south of the International Border and 55 miles south of the city of Vancouver, British Columbia. From Bellingham north to the Fraser River is rich farming country yet not completely developed. This area might be

described as the southern portion of the Fraser River Valley.

The statistics in the following characteristics have been provided by various divisions of the U. S. Department of Commerce unless otherwise noted:

Population Characteristics

	1940	✱ 1948
Whatcom County Total	60,355	Not available
Bellingham	29,314	32,700
Lynden	1,696	2,358
Everson	292	314
Blaine	1,524	1,730
Ferndale	717	850
Nooksack	302	298
Sumas	650	670
Total Urban	34,495	38,920

✱ State of Washington Census Board release May 23, 1948.

Agricultural Characteristics

Area Whatcom County - 21,151 square miles.

Area Whatcom County - 1,376,640 acres

	1940	✱ 1945
Land Area in Farms	196,750	206,781
Per cent of total area	14.3%	15.0%
Number of Farms	4,703	4,854
Total Farm Population	No record	17,883
Cash Wages Paid	$ 427,066	$ 1,488,637
Value of Products sold	$5,713,232	$15,549,824

✱ Estimated by U. S. Department of Commerce.

Manufacturing Characteristics

	* 1948	
	Units	Employees
Total County	1,329	10,822
Manufacturing Total	112	3,865
Lumber	30	1,326
Food and Products	33	876
Furniture	2	221
Pulp Paper and Chemicals	21	201
Primary and Fabricated Metals	8	294
Stone,Clay, Glass and Misc.	18	947

* Records do not give the by-town location of manufacturing.

Estimated by the U. S. Department of Commerce.

The Sales Management Magazine supplies the following:

Bank Deposits December 31, 1944	$35,438,000
Effective Buying Income	68,498,000

Q These figures are for the purpose, I take it, Mr. Matthews, of showing growth and progress?

A And the reasonableness of the estimates that I make further on in the Tables.

Q Yes. I do not think, Mr. Chairman, that we should ask Mr. Matthews to do more than he is doing, to refer them to our attention, because reading them adds very little to it.

A The following supplemental information is taken from the records of the Bellingham Gas Company. Gas Company employees made personal contact with executives of all Bellingham industries to provide the basis for the natural gas market survey prepared by Ebasco Services, Inc., in 1949. Manufacturers were resurveyed by Gas Company employees in November, 1949, for Ford, Bacon & Davis, Inc., and were

rechecked in February, 1950.

Lumbering in its various phases has and will for for years be the major industry of Bellingham and Whatcom County. Hence, timber reserves and its utilization factors will materially affect the future of the area and the Gas Company.

The State of Washington Land Department and the U. S. Forest Service estimate that in Whatcom and Skagit Counties there are available to Bellingham approximately 10 billion feet of sawlog and shingle species. There are some 16 billion feet of timber suitable for pulp mills. Whatcom County is using approximately 66 million feet of sawlogs and some 100 million feet of pulp timber per year.

There are today operating in Bellingham the following wood utilizing and industrial plants:

2 Sawmills cutting 45 million feet per year

1 Shingle mill cutting 175 squares per day

1 Plywood plant cutting 6 million sq. ft. plywood per year

1 Pulp plant producing 130,000 tons per year

1 Paper plant producing 5,000 tons tissue per year

1 Fiber Board plant producing 75,000 tons per year

1 Alcohol plant producing 2,250,000 gallons Ethyl per year

1 Cross Arm, Tank and Pipe Plant

1 Box factory

1 Furniture factory

1 Sash and door factory

1 Cement plant producing 2700 bbls. of cement per day

1 Chain and forge shop with 11 forges

1 Small steel casting plant

1 Brass and bronze foundry

1 Aluminum casting plant

5 Food and fish canneries

3 Dairies and condenseries

3 Food processing plants

While not a potential gas customer, a fish freezing plant is now in operation, and Bellingham is becoming a fishing fleet headquarters as it is a day's sailing closer to the Alaska Banks.

Housing and Building Characteristics

On February 28, 1950, the City Water Department reported that they had in use a total of 11,025 water connections distributed as follows:

Occupied dwellings	10,133
Commercial buildings	739
Industries	97
Schools	29
Churches	27

The 1942 Department of Commerce Housing Survey disclosed the following statistics on the City of Bellingham:

Total Dwelling Units, including multiple occupancy buildings			10,246
Refrigeration units - Total			9,529
Mechanical	3,018	-	32.3% saturation
Ice	511		
Other	225		
None	5,598		
No report	177		
Cooking units - Total			9,529

Still cooking with

Coal	390	
Wood	6,565	
Gas	1,060	- 11.12% saturation
Electricity	1,164	- 12.22% saturation
Gasoline	68	
Other	144	
None	5	
No report	133	

Note: It is doubtful that the above figures would be materially altered as of today because of the lack of appliance sales during the war and the shortage of electric power since.

The following information on gas was obtained from Company records and on electricity from the Puget Sound Power & Light Company on February 28, 1950.

Q What is that company, Mr. Matthews?

A The Puget Sound Power & Light Company.

Q Yes?

A That is the electric utility that distributes electricity in Seattle and in Bellingham and the Puget Sound area.

Q Thank you.

A The retail wood and coal dealers, the coal mine and the oil distributors were surveyed by Company employees at this same time. The survey of the oil distributors indicated that many customers bought from more than one distributor. Due to the fact that there was only one coal mine, two wood and sawdust dealers and three coal distributors in the city, their sum total customers were added and the balance assumed to be oil users.

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Space Heating	Units
Gas	14
Electricity	124
Coal	3,011
Slab and Sawdust	291
Total known units	3,440
Estimated Oil	6,806
Total	10,246

The Trend in the Commercial and Industrial Use of Fuels.

The records of the Bloedel Donovan Lumber Mills showed in excess of 4,800 slab and sawdust customers of all classifications in Bellingham alone in 1929. At that time I was Assistant General Manager of the Bloedel Donovan Lumber Mills and lived in Bellingham so I make that statement. All schools, hotels and large buildings were heated by sawdust. Today a survey shows that but one hotel uses sawdust for heat.

Approximately 30 per cent of Bellingham's 730-odd commercial buildings are heated by coal today; whereas, in 1929 coal was used in over 50 per cent of the buildings.

The Olympic Portland Cement plant in Bellingham used coal until 1948 when the new 11' x 400' oil-fired kiln was installed. Mr. Mogens Krabbe, the general manager, reported that even though his plant was within 2 miles of the coal mine and they sent their own locomotive and coal cars to the mine, they could not be assured of a constant supply. He reports that the average use of P.S. 400 oil is 180,000 barrels per year. The price

today is $1.75 per 42-gallon barrel, f.o.b. Seattle. Transportation to Bellingham is 9 cents, or a f.o.b. dock price of $1.84 per barrel. To this must be added storage, pumping and pre-heating costs which are estimated at 6 cents per barrel, to make a total cost of $1.90 per U.S. barrel.

The Puget Sound Pulp & Timber Company furnishes steam for the Pacific Coast Paper mills in addition to their own use. Present fuel consumption is approximately 120,000 units of hogged fuel and 35,000 barrels of P.S. 400 oil per year. Fuel oil costs them $1.905 per barrel, f.o.b. plant. Mr. Turcott, the executive vice president (and I interject now that he is now the president, since this was written), stated that as soon as electric power was available, which he anticipated it would be in two years, additional by-product plants would be installed and present fuel requirements would be increased 25 per cent. Mr. Turcott further stated that his company plans to further utilize wood waste. He believed that wood in Bellingham would be too valuable to use as fuel with the completion of the expansion plans they are now working on. In line with this planning a new boiler plant addition was completed in 1949 and is equipped for alternate oil or gas firing. For raw material the Puget Sound Pulp & Timber Company owns over 1 billion board feet of timber in fee and has an additional 6 billion board feet under cutting contract or reserved in forest areas. Present use is 100 million board feet per year. This is a 50-year supply of raw material under the present expansion program.

Q THE CHAIRMAN: Will you tell me what P.S. 400 oil is?

A That is a certain weight of oil. You might call it diesel oil. It is a light weight oil, not Bunker C.

PART II

ESTIMATED MARKET FOR NATURAL GAS

BELLINGHAM AREA

In the following estimates only the city of Bellingham and the adjacent suburban areas where existing gas lines could economically be extended are considered. The geographical location of the other six small towns in the county would make it economically unsound to serve them. It is doubtful that the proposed location of a transmission line would be close enough to warrant the capital expenditure for a distribution system in any of these towns at present.

Basic Assumptions

1. Population growth was estimated first by taking the estimated population for 1955 computed by the Bonneville Power Administration in 1946, which was 43,000. The Ebasco Survey, I notice here I said 1948, before I said Ebasco Survey of 1949. That should be corrected, Ebasco Survey of 1948, - estimated 41,000 in 1955. The State of Washington Census Board estimated on May 23, 1948, a population within the city limits of 32,700. Annexation of two suburban areas add approximately 2,000 population, so it is conservatively estimated to have a population today of 34,700. The Company survey would indicate payroll increases of about 500-odd employees within two years. We conservatively use a

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population of 37,000 in 1955.

2. Pulp and its by-products and cement, being the major industries, have operated on practically a continuous basis for over 20 years. It is assumed they will continue to do so in the foreseeable future.

3. The nation-wide consumption of natural gas, according to the American Gas Association, shows a Domestic use of 16 per cent, approximately; Commercial, 6 per cent, approximately; and Industrial, 78 per cent, approximately. Bellingham and the Northwest are geographically and economically similar to other proven natural gas markets. It is therefore assumed that the price of gas at the city gate will follow the history of gas transmission which is that gas is delivered at prices which dictate the abandonment of other fuels.

History of Facilities of the Company

The original distribution system was laid in 1892 in the old town of Fairhaven. From this date until 1914 the system was extended to cover what is now Bellingham. In 1914 it was purchased by the Puget Sound Power & Light Company to stifle competition. Needless to say, from this time on it lost customers. In 1945 it was purchased by its present stockholders.

The years of 1946 and 1947 were spent in converting the system from a 500 Btu carbureted water gas to 1,000 Btu Propane-Air system.

On July 1, 1946, the cost of propane and freight started to rise and continued to do so until August, 1949. The price rose from 4.86 cents to 13.25

cents per gallon, f.o.b. plant, almost 300 per cent. This was not conducive to gaining new customers.

The company was and still is well towards the bottom of Northwest gas utilities in statistics, to wit: customers per mile of main (32); Mcf use per customer (11); saturation of use (15.7%).

The distribution system consists of 56.8 miles of mains, ranging in size from 3/4" to 8" and averaging 3". The system adequately covers almost the entire area within the city limits and is cross tied. There are 7,100 stubs and 5,280 services. Only 1,720 services are in use today. The plant facilities consist of 36,000 gallons Propane storage and 20,000 Mcf Gasair mixing machines.

In order to augment the use of gas and alleviate the necessity for main extensions until it is economically sound, fringe business is serviced by the Northern Gas Company, a liquid petroleum gas distributor, which I own. This company delivers propane and butane (L.P. Gas) by tank truck and bottle in the city and the rural district. In 1949 the utility used 706,711 gallons and Northern used 87,635 gallons. Northern has 259 customers.

In March of 1949 Mr. J. Morrison Pryde of Western Propane Limited, Calgary, was contacted for a supply of L.P. Gas. After almost monthly hearings with the western railroads, rates were established in December, 1949. Weather and supply tank cars prevented more than token shipments until March 1st. At present Alberta is able to supply about 50 per cent of the companies' needs.

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Washington is a very large potential market for surplus Alberta liquid gases. As elsewhere, the advent of natural gas creates a customer gas acceptance that is a boon to the L.P. Gas industry. We mention this because the change in fuel of the utility to natural gas would aid the Northern Gas Company market for Alberta propane.

Basis for Classification Estimated Use - General Statement

Bellingham is presently served with 1,000 Btu dry L.P. Gas; hence, there will be but minor adjustments on the existing customers' appliances. Dry gas introduced to old systems creates a serious leakage problem. We have gone through this period the last two years and this problem should not occupy the time of our personnel. The city is already adequately covered with unloaded mains, stubs and many unused services. Bellingham coal is an expensive and a nasty fuel to use. Our experienced manpower should be adequate to supervise a maximum amount of turn-ons and new service installations. Hence, our first year estimate is based on our ability to serve. Percentage increases are used for the next five years.

Estimate of Domestic Use

Our records show an average yearly use for cooking and water heating of 11,400 cubic feet of a very expensive fuel. The American Gas Association and the Seattle Gas Company estimate that 18,000 cubic feet of 1,000 Btu is a more nearly normal use and that 100,000 cubic feet per year is a norm for heating. Our records show 113,200 cubic feet for heating. We use, therefore, in this computat-

ion, 18,000 and 113,000 cubic feet.

Due to low electric saturation for cooking and water heating, we anticipate that we can secure a 40 per cent saturation in five years after an active sales campaign. Gas appliances have a lower initial cost and superior performance as demonstrated on our present gas. Because the only barrier at present to increasing customers is the high operating cost, a 20 per cent saturation is estimated at the end of the first year.

It is expected that within ten years we will have a 75 per cent saturation on Domestic Space Heating. This is gathered from companies which have converted to natural gas. The high costs of competitive fuels and the advantages of automatic trouble-free natural gas should give us a saturation of 80 per cent in five years and 25 per cent the first year. Appliance dealers are already selling furnaces that are combination oil and gas fired.

Estimates of Commercial Use

Seattle Gas Company records and American Gas Association estimate that the average commercial account will use:

Non Heat	-	1st year	-	168 Mcf.
" "	-	5th year	-	214 "
Heating only				
	-	1st year	-	145 Mcf.
	-	5th year	-	212 Mcf.

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Industrial Use

Estimates are based on the present use of oil fuel from the company survey and anticipates increases in fuel requirements of existing industries.

Basis for Estimating Peak Requirements

Peak requirements were estimated without consideration for peak shaving. No increase in the number of industries or increase in present demand is anticipated, except as noted.

A large percentage of Bellingham's requirements would be in two industries. The pulp operation has shut down less than 20 days in 20 years. The cement plant usually has a shut down of from 30 to 45 days around January, the peak month. Under these conditions, in order to keep a uniform demand and high load factor, peak shaving in varying amounts will probably occur in the late fall and early spring months. The cement plant load about equals the combined Domestic and Commercial peak requirements.

Climatological Base

Bellingham has no official weather Bureau. The following information was furnished by Mr. Murphy in charge of the Weather Bureau Climatological Unit, Seattle, Washington. Observations from 1898 to 1932 were taken by the Bellingham Herald. From 1932 to the present time observations have been made at the U.S. Soil Conservation Laboratory located two miles north of Bellingham. Load factors were calculated from a 50-year average, maximum and minimum temperatures furnished by Mr. Murphy.

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Fifty-Year Consolidated Data

	January	August
Mean Maximum	43.7 F	74.0 F
Mean Minimum	30.8	47.6
Mean Daily	37.2	60.8
Highest Maximum Temperature	64.0	91.0
Lowest Minimum Temperature	-4.0	31.0

Highest Temperature Recorded - - - - - - - 97 F
Lowest Temperature Recorded - - - - - - - -4

50-year average degree days 5880.6

Load factors are estimated on
a designed temperature of + 10.0 F

Load Factors

An analysis of the climatological information shows that Bellingham has plus degree heating days twelve months in the year. There are no prolonged warm spells nor the severe cold experienced east of the mountains. Bellingham's domestic and commercial heating load is such a small proportion of its firm and seasonal industrial load that a very high load factor results.

The rest is concerned with tables and the prices of fuel as surveyed in March.

Q MR. NOLAN: Is there anything on that table on page 14 you would like to draw to the attention of the Board? It is, as it says, a statement of fuel prices?

A These were primarily the prices on various coals that come into Bellingham, and the prices are stated as retail delivered prices per ton before settlement of the last coal strike. I do not know how much their coal has increased in price since this. And the prices on wood fuel, one of our

competitive fuels, was also surveyed at that time. Petroleum fuel prices.

Q Petroleum fuel prices is at the top of page 15?

A Page 15. These were given to me by oil company representatives in Bellingham on March 22nd, as well as the electrical rate in the Puget Sound Power & Light.

Q Now, Table I which follows is a statement of your rate at which you sell your gas?

A Yes, which are too high. I do not need to comment more on that.

Q Yes, and then we come to a set of tables, 2, 3 and 4.

A Those were tables which were prepared by myself and under my direction showing the actual sales for 1946, 1947, 1948 and 1949, except were it was estimated, and those estimated figures in 1946 was when I first took over the company and there were no adequate records.

Q And these tables follow the form to which we have become accustomed, Domestic, Commercial and Industrial?

A Yes.

Q And then there is a table?

A A table of the various types of uses and number of customers, and estimated general space heating and commercial industrial use.

Q Then on table 4 there is a calculation under the total consumption of natural gas for all uses?

A That is right.

Q Now, I observe under the heading "Annual Sales per Customer - Classes - Industrial firm. You have a total over on the right hand column under the future estimate of 618,000?

A That is right.

Q Interruptible, 1,000,000?

A 1,000,000.

Q You have no Industrial firm or interruptible at the moment?

A No, sir.

Q Why is that?

A The price I have to charge for gas.

Q And what percentage of your total sale of gas is represented by that figure, which I will combine into 1,618,000, being the total Industrial firm and interruptible?

A That would look like about 60 per cent.

Q 74%?

A 74%.

Q So that the importance of your industrial estimate - -

A Is very important.

Q Now, you made a calculation, I think, Mr. Matthews, as to what effect there would be upon this estimate which you have just given to me with gas at 30 cents per Mcf.?

A Well, the way I figure the conversion for the pulp mill and the cement plant, that they both use P.S. 400. I figure it up and I have got to have gas to break even at .2980, or .2988 cents. That is my conversion factor, so we will say roughly 30 cents.

Q And anything higher than that?

A I do not believe I would get the industrial load or the interruptible load.

Q And without the industrial or interruptible you lose 74% of the business?

A 74% of the business, yes.

Q I notice in one place in your brief in speaking of the Industrial, in the middle of page 12, you say, "Estimates are based on the present use of fuel oil from the company survey and anticipated increases in fuel requirements of existing industries." What kind of a survey did your company make, Mr. Matthews?

A Well, we personally called on the officials of every one of the industries there and talked with them about the price of their fuel oil and what their fuel oil requirements were at the present time, or what they anticipated they would be in the next five years.

Q Am I right in saying that the information contained in this submission of yours was obtained from those people who were operating these industries?

A Absolutely, yes.

Q And either you, perhaps not you - -

A I did.

Q You did yourself?

A Most of it.

Q What you did not do employees of your own company did?

A That is right.

Q By personal contact with these industries?

A That is right.

MR. NOLAN: Now I am wondering, sir, what would be your convenience, would you like Mr. Matthews now to complete his reading and go on to the other brief or be cross-examined on the Bellingham now?

THE CHAIRMAN: It might be easier if he were

cross-examined on the Bellingham.

MR. NOLAN: Counsel suggest it the other way but whatever the Board suggests.

MR. D.P. McDONALD: I was waiting for Mr. Smith to make his comparison.

MR. S.B. SMITH: Mr. McDonald usually likes to wait. I will let him go first.

CROSS-EXAMINATION BY MR. D.P. McDONALD:

Q There is just one thing, and that is in regard to Table 4, that is, the first four columns, the last item Unaccounted For?

A Yes.

Q Let us take for instance 1949, you have 28,453?

A Mcf.

Q Mcf against?

A That is the actual unaccounted for.

Q Total sales 34,973?

A Mcf.

Q 28,453 is 81% of your total sales. Am I reading it right?

A No, you are not. No, our unaccounted for runs to 45% or 46% at the present time of our total send out.

Q Oh, I see, you are right, the 28 should be over the 63?

A That is right.

Q I notice on 1956 you have allowed unaccounted for of 1%?

A Naturally as your sales go up and if you keep your loss per foot or per mile of main down to say 24,000, your percentage goes down. In other words, I think that 24,000 is a little

bit high even for the amount of main I have there.

Q Well, that is a matter of judgment?

A That is right.

Q It has to do with the installations you do use?

A Yes.

Q The only point I had was, on the general average the percentage allowed is larger than that usually.

A I do not think so, no.

Q Have you any experience in that?

A I have just been through the Middle West and talked to about 20 companies of the same size as Bellingham and Wenatchee that have had natural gas come in there in the last two or three years and that is about right. Lots run less than 1%. In other words, we rather look at it that it should not be over 300 Mcf. over a mile of 3-inch main per year.

CROSS-EXAMINATION BY MR. S.B. SMITH:

Q Mr. Matthews, you seem to have made a pretty thorough survey of the market potentialities in your area?

A Yes.

Q You must have spent a great deal of time on it yourself?

A I did, weeks and weeks and weeks.

Q And I think it would probably be fair to say with your experience and your background and the work you have done on it, you consider yourself competent to give estimates on the market potentialities of that area. I would say I agree with you. You would say that?

A I would say that, yes.

Q The figures you have given here today, I believe you indicated you have made available to Messrs. Ford, Bacon & Davis Incorporated in 1949, is that correct?

A 1949. I think it was in October of 1949.

Q You re-checked, and then did you make the re-check available to Ford, Bacon & Davis as well?

A They asked for certain information, they came into the office, I gave it to them but since then I have washed my hands of anything submitted. It does not agree with my figures at all.

Q I suppose when you come to make estimates of future markets, broadly speaking, two elements enter into it, perhaps three, I suppose experience and judgment?

A And familiarity.

Q And when you come to dispose of your gas, selling enters into it?

A Certainly it has a lot to do with it.

Q Now, the people who have already made estimates as to how much gas you can sell, I suggest appear to either disagree very heartily with your judgment or your ability to sell gas?

A That is right.

Q Because under Domestic you estimate in Bellingham you can sell 438,000 Mcf. in 1956 to Domestic consumers?

A That is right.

Q They cut you down to 292,500 ?

A Well, I ought to be able to do as well as other companies in the Middle West.

Q You are confident you can?

A I know I can.

Q In Commercial they cut you down, 183,000 to 97,500. They cut you in half there, and Industrial firm you have 618,000 and they cut that out completely, they do not think you can sell any industrial firm gas.

MR. C.E. SMITH: You have got the other side of the record, haven't you, this time?

Q MR. S.B. SMITH: They leave you the interruptible of a million Mcf. It rather appears that they disagree very heartily with either your experience or your judgment or your ability to sell?

A That is right.

Q And you speak in your brief of a future active sales campaign. You intend to have just exactly what you describe there, don't you, Mr. Matthews?

A I certainly do.

Q An active sales campaign?

A And how! Yes, I do, you bet.

THE CHAIRMAN: I think we will adjourn now.

(The Hearing then took a brief recess.)

(Go to page 471)

CROSS-EXAMINATION BY MR. D. P. McDONALD:

Q Mr. Matthews, since it has been brought out by Mr. Smith, I thought that maybe we should look at the information that you have given to Ford, Bacon & Davis, Incorporated, and possibly you will also recollect that during the course of the Westcoast Transmission hearing you sent a telegram which, of course, was read into the record, so that your views would be available in the record of the Westcoast hearing. Now, I haven't the proceedings before me, but the information that you gave to Ford, Bacon & Davis, and the information that you confirmed in that telegram showed a total annual sales of 3,846,639. At that time your residential or domestic you estimated at 624,506. Your interruptible, no, the firm industrial load, 3,048,653.

MR. S. B. SMITH: What are you reading from, Mr. McDonald?

MR. McDONALD: I am reading from my record that was taken from the Westcoast Transmission record.

MR. S. B. SMITH: Are you reading from a document?

MR. McDONALD: No, I am reading from my own notes. I mean, I am quite prepared to stand the witness over, Mr. Chairman, and deal with this later. The only point I have in mind now, Mr. Matthews has submitted a statement in which he shows a total annual sales of 2,239,000. I think that is the exhibit he has placed in record now.

Q Now, would you just tell me, Mr. Matthews, the difference in the two estimates?

A Primarily it is on the Puget Sound Pulp & Timber Company, and I used in this computation 36,000 barrels of fuel oil which they are now using. They have plans whereby they

will use approximately 120,000 barrels of fuel oil, but their future plans have been delayed and they cannot get the power to go ahead with their development in the foreseeable future.

Q Yes? And then with regard to the residential, you had 624,000. Now, you have an estimate of 438,000?

A I do not know about that because I do not have that before me.

Q You do not have that before you?

A No.

Q The only point I wish to make, and perhaps you will agree with me that the matter of estimating the future market is a matter of judgment?

A Yes.

Q And the judgment can vary from time to time?

A As conditions change, yes.

Q As conditions change?

A Yes.

Q And the estimates made by Ford, Bacon & Davis, and presented in the Westcoast hearing was their judgment made in January of this year?

A Not mine.

Q Not yours, but, I mean, they were made in that period?

A I do not know what they did. I do not know how they made their survey.

Q But they were presented in January?

A They were presented, I understand, yes.

Q You don't know what they did, no. And in their judgment at that time they thought your estimate in November was high and so they brought in a lesser amount of gas which

was to be used by your system?

A Yes.

Q The record shows that?

A Yes, that is what I understand.

Q And between the two you revised your own judgment and have brought in a lesser amount?

A Well, this is my estimate.

Q Right now?

A My present estimate.

Q But the only point I am raising with you is that it is not the information that you had available last November, it has been revised since then?

A Yes, that is my present estimate.

Q That is your present estimate?

A Yes.

Q Fine. Now, there is one other thing that has got me a little concerned. You have your 50-year average degree days at 5,880.6 on page 13 of Exhibit 12?

A Yes.

Q Now, on the exhibit read into the record by Mr. Copp, what is the exhibit number, I have so many of them here.

MR.MARTLAND: Exhibit 5.

Q MR.McDONALD: Exhibit Number 5. He uses the same figure that you use, that is on Table D of Exhibit 5. Now, we have Seattle, Washington, in the same exhibit at 4321 degree days, and Vancouver, B.C., at 5,118 degree days. Can you explain that?

A Yes. I will tell you how that happened, because this was computed for me by Mr. Murphy of the Weather Bureau in Seattle, and it looked rather odd, and I mentioned it, why

should Bellingham be the coldest city on the Puget Sound area, and he said, "It is because it is almost directly west of the Straits of Juan de Fuca, and they get a lot more cold wind there, plus the fact that the cold winds from the prairies comes down the Fraser River Valley and kind of circulate in the Chuckanut Mountains."

Q It is a local condition?

A Yes.

Q If you will just let me have this information too, Mr. Matthews. On Page 11 of your report on the General Use of Gas, you state "We anticipate that we can secure a 40% saturation in 5 years after an active sales campaign." Now, that would be 40% of what?

A The potential customers in that area that are now not using modern fuels. The thing I show you back here, cooking units, 9,529, you have still got 6,565 people that are cooking on wood in that area, or approximately that figure.

Q Yes, that is right. Well, the only thing I had in mind was this, 5,003 is the number that you use in Table 4 - I am sorry, Table 2, it is my mistake, Table 2 shows 5,003. Now, 5,003 is 40% of 12,500, and you have total dwelling units,including multiple occupancy buildings, of 10,246. Now, were you anticipating an increase?

A Yes, because we will have some fringe business that does not necessarily come under the exact figures that we have given or that were given by the Department of Commerce.

Q And then again on Page 11, you refer to 70% of saturation space heating?

A That is right.

Q And you have set that out at 3,073?

A Yes.

Q That would be 70% of 4,400. Now, as I have it, your space heating possibilities are 10,246. That is on Page 5. What I had in mind, and what I wanted to know, is is the 70% of the total space heating 70% of the total connected domestic customers?

A Connected domestic customers?

Q Yes?

A No, of the potential.

Q Of the potential?

A Yes.

Q Do you recollect exactly the connection between the two figures?

A I do not get your question exactly.

Q Well, you have 70% saturation of your space heating?

A That is right.

Q I was wondering what it was 70% of? I mean, what is your total?

A Of the total buildings and dwellings that would be served by the mains.

Q By the mains?

A Yes.

Q My difficulty is this, that you have on page 5 a total of 10,246 possible space heating customers. That would be in the whole area?

A On page, you say?

Q On Page 5?

A On page 5?

Q Yes, at the bottom of page 5.

A You will notice that this is a 1942 Department of Commerce

Housing Survey.

Q That is right, yes.

A And there have been some increases since then. That is on the present estimated population.

Q Well, even at that, the 3,073 in Table 2 does not correspond to 70% of even the 1942 possible space heating. If you have the informatiin available I would like to know?

A Well, I do not have the working figures on that.

Q You do not have the working figures on that?

A No. I am possibly low. I should probably raise that.

Q Yes?

A These have been checked by the Accounting Department. I can send you an explanation if you like on that.

Q Yes, I would be glad to have it, so that the record will be clear. All right, thanks.

.....

CROSS-EXAMINATIONBY MR. C. E. SMITH:

Q I take it, Mr. Matthews, that you hope to be able to say "Now we are cooking with gas"?

A That is right.

Q Having regard to the large number of wood cook stoves you have down?

A Yes.

Q You have been present all week, have you?

A Yes, I have.

Q So that you have heard the few questions I have asked the various representatives of other corporations?

A Yes.

Q With respect to their idea on the question of reserves?

A Yes.

Q For instance, I asked with respect to the certainty of adequate reserves and so on?

A Yes.

Q I rather gathered, Mr. Matthews, having heard what they said, that you might say that you would be willing to take a bit more of a gamble than they would?

A I would certainly on that question.

Q And that is a fair way of putting in?

A Certainly.

Q Just one other question. This may be only a matter of interest, but I notice on page 10 - will you look at page 10, Mr. Matthews?

A Yes.

Q In the middle of the page, Mr. Matthews?

A Yes.

Q The paragraph starting out, "In March of 1949 Mr. J. Morrison Pryde of Western Propane", etc.?

A Yes.

Q The "L.P." refers to liquid propane?

A Liquid petroleum gas. That is what they call it, L.P.G., Liquid Petroleum Gas.

Q Using that term, you go on to say that at present Alberta is able to supply about 50% of the companies' needs?

A Yes.

Q Do I take that to mean that they are doing it now?

A They are doing it now.

Q Not able to, but it is being done?

A Yes, it is being done. It has been since the 1st of March, since they have had enough tank cars, and we are turning them around as fast as we can, and shipping the

L.P.G. into Bellingham and Wenatchee.

Q And that is about 50% of your requirements?

A Yes.

Q Can you give me, if it is not a secret, can you give me an approximate idea of the amount per month?

A It is running about, let us see, 70 or 80,000 gallons a month.

Q In that vicinity?

A In that vicinity, yes.

Q Yes?

A There will be more propane to be shipped down there when there are tank cars and more facilities for recovering here.

Q But that is the present situation?

A That is right.

Q That is all.

.....

DIRECT EXAMINATION BY MR. NOLAN:

Q Well, then, I think, sir, if all Counsel have completed their examinations, we will go on with the Wenatchee Company. You are president of this Company, too, are you, Mr. Matthews?

A Yes, sir.

Q And it is a company that supplies gas?

A Yes, sir.

Q To Wenatchee?

A Yes, sir.

Q And the surrounding district?

A Just at the present time within the corporate limits of

Wenatchee.

Q What is the population of Wenatchee?

A Well, as close as I can estimate, it is about 20,000 at the present time.

Q How long have you been president of this company?

A Since I purchased the property in 1945, at the same time that I purchased Bellingham.

Q Yes. And you were asked to prepare on behalf of that company, at the request of the Applicant, a brief to be submitted to this Board, Mr. Matthews?

A Yes.

Q And the document you have before you, the brief of the Wenatchee Gas Company, is the document that you prepared?

A It is.

MR.NOLAN: And may it have a number, please, Mr. Chairman?

THE CHAIRMAN: Exhibit 13.

BRIEF OF THE WENATCHEE GAS COMPANY MARKED EXHIBIT 13.

Q MR.NOLAN: Perhaps you would be good enough to read this to the Board now, please, Mr. Matthews?

A

PART I

GEOGRAPHICAL AND RESOURCE CHARACTERISTICS

The city of Wenatchee is located east of the Cascade Mountains on the banks of the Columbia River in Central Washington. It is approximately 94 air miles west of Spokane. Wenatchee is the trading centre for Chelan, Douglas and Okanogan Counties.

According to the U. S. Department of Interior's Bonneville Power Administration's survey of July, 1945, this area covered 6.4 million acres in which 67,600 people lived in 1940. Including Grand Coulee Dam, which is partly in Okanogan County, the area contains about 7 per cent of the hydroelectric generating capacity of the United States and 6 per cent of the undeveloped water power. South and east of the dam and river lie rolling wheat lands; and north and west, forested mineralized mountains and range land. Narrow fertile valleys interrupt the mountainous terrain. These valleys, containing about 40,000 acres of irrigated orchards, in 1939 produced 8 per cent of the apples, 5 per cent of the pears, 3 per cent of the cherries and 2 per cent of the apricots grown in the United States.

Projected Resources Development (As per the Bonneville Survey shows)

1. Hydroelectric Power Development

	Present	Potential	Remarks
Grand Coulee Dam	1,440,000 kw	2,160,000 kw	Increasing as rapidly as possible

Rock Island, which is about 10 miles south of Wenatchee,

	80,000	240,000	Status quo

Chief Joseph, they are starting the constru tion of it at the present time a few miles north of Wenatchee on the river, and will eventually have

1,280,000

Chelan Falls, which is 30 miles north and on the Chelan River near Lake Chelan,	48,000 kw	574,000 kw	Status quo
4 Other Small Plants, generating	9,650	9,650	Status quo

Which gives in that area roughly a total of 1,577,650 kws being generated, and a potential of 4,164,650 kws.

2. Irrigation Development

The U. S. Bureau of Reclamation is presently working on plans to add some 110,000 acres of irrigated land to the existing 40,000 acres in the area. These projects are exclusive of the Coulee Dam Irrigation project to the east of Wenatchee which is now under construction. The total Grand Coulee Dam project now under construction will reclaim in excess of 1,000,000 acres. Some 300,000 acres will be within the Wenatchee shopping area; 50,000 acres in this area have been put under cultivation since 1945.

3. Other Resources and Developments

The major factor for the continued growth of Wenatchee as a trade centre will be the increase in the number of farms and orchards. During the next decade government payrolls on hydroelectric and irrigation projects will have a steadying influence on its economy.

Lumbering in this area is of sufficient importance to be mentioned. The U.S. Forest Service reported that on January 1, 1943, the area contained 12.198 billion feet of merchantable timber and that 34 sawmills were cutting

168 million board feet of lumber per year. This is in excess of a 70-year supply of raw material for the 1,500-odd employed in the various phases of this industry.

Ores mined in the area are gold, silver, lead, copper,sinc and graphite. In 1940 in excess of 700 were employed in this industry. Undeveloped but known deposits of the following are in the area; There is a whole list of them there. I do not know whether I can pronounce all of the names there. I will just skip that.

Limestone	Sodium Sulphate
Epsom Salts	Pumice
Iron	Tungsten
Nickel	Molybdenum
Chrome	Dolomite
Marl	Manganese
Antimony	Asbestos
Chromium	Cinnabar

The Washington State Department of Conservation and Development, from whose inventory of minerals the above is a partial list, states, "The region is highly mineralized, but much of the territory has not been prospected."

With the development of farms and orchards the Food Processing industry should account for the most immediate industrial growth. The principal food processing consists of:

Dehydrator Plants
Vegetable and Fruit Canneries
Vinegar Plants
Glucose and Starch Plants
Fruit Confectionery
Jelly and Jam Factory
Quick Freeze Plants

Population Characteristics

The statistics in the following tabulations were provided by various divisions of the U.S.Department of Commerce, unless otherwise noted:

	1940	* 1948
Wenatchee	11,620	** 13,000
Chelan	1,736	2,131
Cashmere	1,465	1,662
Leavenworth	1,608	1,695
Total Urban	16,429	18,488

* State of Washington Census Bureau release May 23,1948.

** The city has a considerable population adjacent to the city limits which is in the process of being annexed. It is estimated that it will increase the present population by at least 7,000.

That figure I got from the Water Company, the Telephone Company and from our own personal survey of our employees.

Trade Characteristics

	* 1948 Units	Employees
Total County	938	7,125
Manufacturing	70	1,187
Mining	8	384
Utilities	44	316
Wholesale	97	939
Retail	329	1,732
Service	234	1,045
Finance,Real Estate and Insurance	57	246
B alance in miscellaneous classifications		

* State of Washington Employment Security Department Second Quarter of 1948

Housing and Building Characteristics

The 1942 Department of Commerce Housing Survey showed as follows: There is a tabulation of a number of units in the adjacent market area there:

Total dwelling units	3,984

Refrigeration units:

Mechanical	2,184 - 60.5%
Ice	706
Other	9
None	708
No report	39

Cooking units:

Coal	87
Wood	1,698
Gas	280
Electric	1,357
Kerosene	151
Other	12
None	20
No report	4

And there, again, because it was the basis of some of our computations, or entered into them, I should say, it showed that they had a very high percentage of mechanical refrigeration units, so that I do not think we will sell very many Servel refrigerators. I might say with regard to the gas there, that that was a 1942 Survey, and we have almost twice that many gas customers at the present time.

A company survey in 1950 disclosed there were approximately 6,483 residences in greater Wenatchee that could be served eventually by the gas mains.

On March 15, 1950, the Water Company reported the following active connections:

Dwellings	3,965
Commercial Buildings	626
Industries	28
Schools and Churches	21

S. Matthews,
Dir. Ex.by Mr. Nolan

PART II

ESTIMATED MARKET FOR NATURAL GAS

WENATCHEE AREA

The following estimates are based on conditions within the city limits of Wenatchee and adjacent suburban areas to be annexed, and to which mains will be extended. It is very doubtful that the proposed location of a transmission line would be close enough to warrant the capital expenditure for a distribution system in any other towns in the area.

Basic Assumptions:

1. Wenatchee is definitely a wholesale and retail trading centre. The growth will depend upon the rate of the development of the vast natural resources in the area, both by government expenditures and investment of private capital. While it is assumed that the present rate of growth from 1940 to 1948 may continue, the present estimated population of 20,000 for Greater Wenatchee is used as a basis for the next seven years.

2. It is assumed that hydroelectric and reclamation projects now in progress and the establishment of new orchards and farms will offset any agricultural recession.

3. Natural gas will be made available at prices that will encourage its widespread use. All solid and liquid fuels are now imported by rail at comparatively high costs.

History and Facilities of the Company

The original system was laid in 1914. It was purchased by the Puget Sound Power & Light Company in 1923. An inferior quality of carburetted water gas was supplied to the customers until after its purchase in 1945 by the present stockholders. Gas rates were the highest in the state, and only 384 customers remained when the plant was changed to 1000 Btu Propane-Air in 1946.

The distribution system consists of 13.2 miles of mains ranging in size from 3/4 to 4 inches. There are 1,800 stubs and 1,200 services; there are 476 services in use today. The system is a medium-pressure system with regulators at each service. Unaccounted for per mile of 3-inch equivalent main is very low. The plant facilities consist of 18,000 gallons Propane storate and 10,000 Mcf per hour Gasair mixing capacity.

The Northern Gas Company, a distributor of liquid petroleum gas, operates in conjunction with the Utility to serve customers beyond the present mains. It follows the same procedure more fully described in the brief of the Bellingham Gas Company. It also is now securing about 50 per cent of its propane requirements from Alberta Producers. In 1949 the Utility used 137,072 gallons of propane and Northern used 101,206 gallons in this area.

Basis for Classification Estimated Use

Domestic Use

The rate of attachment of Domestic customers will be retarded from the estimated total saturation due to lack of mains. Space heating is estimated at a total of 60 per cent saturation and general use at 40 per cent in

five yesrs. We estimate, due to climatic conditions and from our records, an average annual use of 130,000 cubic feet, that is, per customer, for space heating. General use is estimated at 18,000 cubic feet per year per customer.

Commercial Use

The total degree days in Wenatchee per annum are very close to Bellingham. The weather is colder in the winter and warmer in the summer; hence, for annual use, we use estimates furnished by the American Gas Association and Seattle Gas Company, to wit:

Non Heat - 1st year	-	168 Mcf
" " - 5th year	-	214 "
Heating only		
- 1st year	-	145 "
- 5th year	-	212 "

The rate of acquisition of commercial accounts is based on an actual survey made by Company employees. Mains adequately cover the commercial section, and nearly all buildings are now piped for gas. No estimates of commercial accounts not presently established were made.

Industrial Use

Company employees surveyed all industrial users and estimates are based on present actual fuel requirements. Only industrial accounts presently adjacent to mains are included in the first year's requirements. It is estimated that the balance of the industries will be served by mains in the fifth year.

S. Matthews,
Dir. Ex.by Mr. Nolan

Climatological Base

Wenatchee has no official weather station. The following information was furnished by Mr. Murphy in charge of the Weather Bureau Climatological Unit, Seattle, Washington, and the U. S.Department of Agriculture's Weather Station some two miles from Wenatchee.

Load factors were calculated from fifty-year averages, maximum and minimum temperatures and formulas furnished by Mr. Murphy.

Fifty-Year Consolidated Data

January average	25.8°F	Minimum	-29.0°F
July average	73.4°	Maximum	110.0°

50-year average degree days - 5,853.4

Load factors of heating are estimated on a designed temperature of -10.0°F.

Then I follow on Page 10- with the current fuel prices in Wenatchee, the electrical rates for general residence and farm lighting and power, and the commercial cooking and heating rates.

Fuel Prices - March 15, 1950

Petroleum Fuels

	Size of Delivery Gallons			
	1-39	40-199	200-399	400 up
	(cents per gallon)			
Dome stic Customers Diesel	18.5	14.5	14	13.5
Light Industrial(PS-300)		$3.2614 per bbl. or .077652 per gal.		
Medium Industrial(PS-400)		$2,7114 per bbl. or .064557 per gal.		
Heavy Industrial (Bunker "C")		$2.5114 per bbl. or .059795 per gal.		

Coal

Roslyn Washington Coal - 13,000 Btu per lb., approx.

2 ton delivery stoker	$ 21.50 per ton
Seattle Gas Company Briquettes	23.15 per ton

Wood

Fir per cord	$ 20.00
Apple per cord	16.50

Electricity

General Residence and Farm Lighting and Power

First	60 kw @ 3.2 cents
Next	240 kw @ 2.0 cents
All over	300 kw @ 1.0 cent

Commercial Cooking and Heating

2 1/2	cents per kw for first	200	kw per month
1 1/2	cents per kw for next	300	kw per month
1 1/4	cents per kw for next	1,500	kw per month
1	cent per kw for next	4,000	kw per month
.9	cents per kw for over	6,000	kw per month

Table No. 1 shows the Wenatchee Gas rates, and it is really surprising at these rates how we have been able to put some customers on. We have an additional schedule 3, or, I mean an optional schedule, an optional rate. And then we go on to the Table.

Wenatchee Gas Company

Gas Rates on 1,000 Btu Propane-Air Gas

Schedule I - Metered Gas Service

Available for All Purposes

Rate Per Konth -	First	50 cu. ft.	$1.50
	First	100 cu. ft.	1.65
	First	150 cu. ft.	1.80
	First	200 cu. ft.	1.95
	First	250 cu. ft.	2.10
	First	300 cu. ft.	2.25
	First	350 cu. ft.	2.40
	First	400 cu. ft.	2.55

- First 450 cu. ft.	$ 2.70	
First 500 cu. ft.	2.85	
Next 500 cu. ft.	.52	per 100 cu.ft.
,Next 500 cu. ft.	.47	per 100 cu.ft.
Next 500 cu. ft.	.42	per 100 cu.ft.
Next 500 cu. ft.	.37	per 100 cu.ft.
Next 2500 cu. ft.	.33	per 100 cu.ft.
Next 2500 cu. ft.	.29	per 100 cu.ft.
All over 7500 cu. ft.	.26	per 100 cu.ft.

Minimum Monthly Charge $ 1.50

Discount None

Schedule 3 - Optional Gas Rate

Available for All Purposes

Rate Per Month -

Twelve cents per cubic foot of demand per month,
Plus: Customer charge of 75 cents per month
Plus: For the first 5,000 cubic feet of gas consumer per month, $2.00 per 1,000 cubic feet

For all gas consumed in excess of 5,000 cubic feet per month, $1.60 per 1,000 cubic feet.

Discount None

Q And the Tables are built up in the same manner as they were for your other Company?

A Yes, if we take into consideration the difference due to the community, the difference in the community.

Q Well, looking at Table Number 5, which is the composite Table of all sales of natural gas?

A On Table Number 5, 1946, '47, '48 and '49 are actual, except in '46, as noted by the asterisks, where it was estimated due to the fact that we had just begun the company, had just taken the company over and had not established adequate records.

Q And I am informed on reliable authority that that is 41% of your total?

A

A Yes.

Q Have you worked that out?

A No, I haven't worked it out.

Q What effect would 30 cent gas have on that estimate, at the end of the 5th year?

A With 30 cent gas we would be able to get customers in Wenatchee on that due to the higher fuel costs there.

Q What about a 35 cent gas?

A Well, 35 cents, just let me look at my conversions here, well, 35 is getting awfully close. It does not leave very much for overhead. In other words, it would just about break even at 35 cents.

(Go to Page 492)

Q And 40 cents, Mr. Matthew?

A I could not get any industrial business at 40 cents.

Q And the industrial is a considerable portion of your total?

A 40%, yes.

Q Do I understand from this submission that you used the same method of computing the information upon which your estimate is based as was done in the case of the Bellingham Company?

A That is correct.

Q Although perhaps you did not do it personally in this instance?

A I did a great deal of it personally, yes.

Q The same as you did with the other company?

A In Bellingham, yes.

Q Thank you.

CROSS-EXAMINATION BY MR. BRUCE SMITH.

Q Mr. Matthews, I take it you really made as thorough and as complete and as carefully done a survey as you could do?

A Absolutely.

Q Both in Wenatchee and Bellingham?

A Yes, sir.

Q How do they compare, your figures, with those furnished by the Westcoast Transmission?

A They were not furnished.

Q Well, furnished here?

A Beg pardon?

Q I am sorry, perhaps I am wrong about that.

A The Westcoast did not ask for any figures on Wenatchee.

Q No, they did not give any figures on Wenatchee but they gave certain figures for other Washington consumers and

perhaps I am in error in assuming those are Wenatchee figures?

MR. D. P. McDonald: Those figures do not include anything for Wenatchee.

Q MR. BRUCE SMITH: Where are the other Washington consumers you deal with in your Exhibit No. 39? Perhaps you can tell me that? You provided for "other Washington consumers". You dealt with all these others we have been talking of here just now except Wenatchee and then you provided for "other Washington consumers". I assumed those were Wenatchee?

A No, they did not propose to take in Wenatchee in their system.

Q They are going to leave you out in the cold too?

A Yes.

MR. D. P. McDONALD: These "other Washington" are a number of the smaller areas outside of the areas now served by manufactured gas there. They are small individual items. You notice the total is very small. They did not include Wenatchee anyway.

MR. BRUCE SMITH: They did not?

MR. McDONALD: No.

Q MR. BRUCE SMITH: I see. Wenatchee just does not get gas under their plan?

A That is right.

MR. McDONALD: It is on the other side of the mountains from our service.

Q MR. BRUCE SMITH: Now you have told us that you talked with some members of the firm of Ford, Bacon & Davis and they have made some estimates with respect to Bellingham?

A Yes.

Q Did they go and interview the industrial customers as you did, can you tell me?

A The only thing that I know is that I went back to these industrial customers and talked to the Presidents and asked them if they had been there and - -

MR. McDONALD: Mr. Chairman, I think we can carry the hearsay rule some distance but I think we have got to the limit.

MR. BRUCE SMITH: I remember taking objection to some hearsay and I remember the position you took, Mr. McDonald. May I proceed, sir?

THE CHAIRMAN: You can reply if you care to and if not, leave it.

A Well they did not talk to the Presidents or General Managers of those companies, industrial accounts, as I did. Mine was not an observation car survey, I can assure you of that.

Q MR. BRUCE SMITH: I have not heard about this telegram before. You telegraphed to this Commission?

A No, I did not. I telegraphed to Ford, Bacon & Davis.

Q And was it produced to the Board?

A I called their attention, when I got their exhibits, to what I felt were some mistakes that did not occur in the figures I had given them, so I merely called it to their attention. They did not have to read it into the record unless they wanted to.

Q I understand. But you felt it was sufficiently important that it should be drawn to their attention?

A I did.

MR. NOLAN: If that is all, I will call my

next witness, if I may. Would Mr. Gellert please come to the stand?

N. HENRY GELLERT, having been duly sworn, testified as follows:-

MR. NOLAN: You will remember Mr. Gellert's name was mentioned earlier in these proceedings and particularly at the time when I was anxious that Mr. Jones of the Seattle Gas Company should be released. It was understood that Mr. Gellert would remain and be made available. Mr. Gellert's submission is in the brief that has been read to you, given by Mr. Jones, of his company. But there are one or two matters of general information which I would like Mr. Gellert to put before the Board.

Q Mr. Gellert, what is your position in respect to the Seattle Gas Company?

A I am president of the Seattle Gas Company.

Q You are also President of the Pacific Coast Gas Association?

A I am.

Q What is that?

A It is an association of all the gas companies of the United States, West of the Rockies, and also includes gas companies in British Columbia, which in this instance is the B. C. Electric.

Q And how many companies does that comprise?

A I am sorry I cannot tell you exactly. It is quite a number.

Q Is it 10, 20 or 30?

A I imagine it would be closer to 30 than any of the other figures.

Q What is the purpose of the association?

A The association is an organism through which these companies exchange ideas in the first place and are of great assistance to each other by the interchange of information. Secondly, it implements for these companies things which they could not implement for themselves. For instance, this year we are having a coast-wide series of campaigns for ranges and water heaters. In this campaign all of the member companies are able to get services of top advertising agents and of getting literature in color and pamphlets in color, which very few of them could afford if they had to do it individually.

Q How long have you been President, Mr. Gellert?

A Well, I have been President a little less than one year. One year is the length of term of any President.

Q So your term is about up?

A It comes to a glorious end on the 3rd of August.

Q Now we have had presented to us here certain submissions by companies, the Seattle Gas Company, which is your own, the Spokane Gas and Fuel Company, the Portland Gas & Coke Company and by Mr. Matthews' two companies, the Bellingham and Wenatchee. Are those companies franchised? Do they hold exclusive franchises in their communities?

A I am unable to give you that information for the other companies.

Q Well, tell me about your own Seattle Gas Company?

A In Seattle we are in the very fortunate position of having a perpetual franchise which is a very rare thing for any public utility.

Q From whom did you get that franchise?

A This franchise was granted by the Legislature.

Q Is there any type of regulatory body in the State of Washington that governs your company and tells it what its rate of return will be on its investment?

A There is.

Q What is it?

A The Public Service Commission of the State of Washington.

Q Is there a similar body in the State of Oregon?

A There is.

Q What is it called?

A I do not know its exact name. It is probably the Public Utilities Commission of the State of Oregon.

Q Yes, and do you know whether your Commission corresponds to our Public Utilities Commission up here in Alberta?

A I imagine it does.

Q And it does fix the rate of return which you may earn on your invested capital?

A Yes, it does.

Q You have been here during the week, Mr. Gellert, haven't you?

A I have.

Q You have noted I have been asking the Presidents of the companies to briefly explain their policy appropos to the importation of natural gas into their particular States. You have heard submissions of policy made. Are you in a position to state the policy of your company with regard to that importation?

A I am.

Q Would you please do so?

A We are prepared to negotiate a contract with any pipe line

company that can satisfy us that it has a source of supply of gas, with sufficient open flow and adequate reserves to take care of our needs. That would be one of several conditions. The second would be that it has the engineering and financial ability to build the line. The third would be that it would be able to make deliveries of gas through the line with the least possible number of interruptions. The next would be evidence that it will deliver gas to us at the lowest possible cost and that the price of the gas to us would be such that we could develop and maintain our own market in the face of competition with oil and cheap public power; and that that price also would be such that we could earn a fair return as eventually designated by our Public Service Commission on our rate base. And the last condition, that the pipe line's planned operations are such that its price of gas to us is adequate for it to ensure its own stability and its continued operation.

Q Assuming then the fulfilment of what you are pleased to call these conditions, you are favourably disposed to the importation of Alberta gas?

A Very much so.

Q Thank you.

CROSS-EXAMINED BY MR. MacDONALD.

Q I have a couple of questions I would like to ask you. In the first place, if your company had been requested to prepare estimates, not based on 5 year requirements - and I am speaking now of the Seattle Gas Company - but on a requirement for a longer period, with your experience do you think that estimate could have been made?

A I would not have permitted such estimates, as I think they are thoroughly invalid.

Q You mentioned as one condition, open flow and adequate reserves to care for your needs. Now, does that sufficient flow to you mean sufficient flow for any stated period?

A Well, the open flow - the technical definition of "open flow" is the amount of gas that comes out of a well in a 24-hour period.

Q But when you speak of caring for your needs, have you stated a period of any amount over which your needs would be cared for?

A Now, are you talking of open flow or reserves? Our needs for a stated period of time are dictated by reserves.

Q Let us presume that you have, as most companies have put in, a 70 per cent load factor. And we are dealing with what you are going to get at your gate. I am asking you whether you have considered, when you say "your needs", whether you have considered your needs in terms of a stated period. I mean, you know and I know that a financial investment requires you to have some information on period and I am asking whether the stated period can be stated in terms of years?

A I am afraid I do not quite understand what you are asking. Do you mean for how long a period do I want to be assured?

Q Yes, that is right.

A Of natural gas?

Q Yes?

A I would say at least 20 to 25 years.

Q You have heard Mr. Smith, counsel for the Board, raise the question from time to time of this matter of section 9 of our Alberta Act, with which you are no doubt familiar. And

is it your opinion that you can reconcile section 9 and your desire for a 20 to 25 year contract?

A Well, perhaps this statement would clarify my position regarding Section 9 of the Gas Resources Preservation Act.

Q Yes?

A Before signing any contract with any pipe line or giving a letter of intent, we would consult our attorneys and our engineers regarding the probability of serious interruption of gas supply and its consequences to us, and on the basis of those consultations we would come to a final decision. The provisions of the Gas Resources Act, like the question of adequate reserves, in our opinion,are matters that have to be treated as considered risks in our business. No business is done except on considered risks and we would treat this in exactly the same fashion.

Q Now I have just one other question. If I have followed it correctly, there has been a 70 per cent load factor in general terms taken as what the line should be carrying. Would you expect in the case of your particular company to have your contracts sufficiently flexible that you could loop a line, for example, or by some means increase your load factor to say 90 or 95 per cent?

A We would expect that and be very happy to provide for it.

CROSS-EXAMINATION BY MR. D. P. McDONALD.

Q Mr. Gellert, have you had experience in the natural gas business prior to your present association with the Seattle Gas Company?

A Some.

Q And have you had occasion to consider matters of estimating

future markets both in manufactured gas and in natural gas?

A Many times.

Q You have heard the discussions we have had here about the differences in estimates. What have you to say about the extent and nature of the differences between estimates by the utility companies that have been presented and Ford, Bacon & Davis' over-all estimate of the same territory?

A Well, I do not want to judge their estimating by the utilty companies, because I do not know how they made them. I know how we made our own.

Q I am thinking of the volumetric differences between them, within the range of error. Judgment as between individual parties who might make them?

A Some of those figures are a little bit indefinite in my mind at the present time, because I did not have any document in front of me. Some of them seem to me extremely wide. Others did not seem quite so bad.

Q It is a matter of judgment of the men making them ?

A Estimates are very largely matters of judgment.

Q As a general rule, is there any range and if so, are they within, say 25%, are they still worthy of consideration?

A I think 25% is too much.

Q 10%?

A I think 10% limit is good.

Q 15%?

A Well 15% could be acceptable but it is possibly not as good.

Q Something in that nature is worthy of consideration in the general difference between estimates?

A That is right.

Q The reason I raise that is that from your discussions with Ford, Bacon & Davis representatives when they were in your office, sometime in the early part of the year or the latter part of last year, rather, were you personally aware of that?

A Yes, I was aware of it.

Q Some representations were then made by your company?

A Yes.

Q Do you know if subsequently those representations were revised upwards after other consideration, particularly for space heating and sales to either domestic or commercial consumers?

A Was our own changed?

Q Yes?

A That is right.

Q That was done. So the question of making these estimates varies in the judgment of the individuals from time to time?

A That is correct.

Q I have not got the figures of the revisions you made at the time but I understand they were fairly substantial?

A Well, I do not recollect. I know we made revisions.

Q Is it not a fact that people who have been identified with manufactured gas operations in recent years, and have had no experience with natural gas, are prone to underestimate the possibility of selling natural gas when it is made available in their areas?

A If you are referring to us, the answer is no.

Q Generally. I am not referring particularly to you?

A I have not gone over these figures generally. I have just listened to the figures here and I do not think any of them

are underestimated.

Q You do not think any of them are underestimated?

A No, sir.

Q In other words, you agree with the general proposition that estimates based on manufactured gas experience are underestimated when applied to actual results on the introduction of natural gas?

A I don't think so. I said I did not think they were underestimated.

Q You did not think they were underestimated?

A I did not think they were underestimated.

Q I am sorry, I took it that you thought they were underestimated.

A No, I did not.

Q That is for this particular area?

A That is right.

Q Now referring to your experience with natural gas, have you had occasion to form any judgment on that question? I asked you with regard to your experience in natural gas?

A Well I have had 13 years' experience in running natural gas companies, converting four of them from manufactured to natural.

Q And what was your experience there?

A My experience is that when you make estimates for natural gas above 3 years you begin to have doubtful figures for the last two. If you make them for 5 years, you are just as likely to exceed them as to go below them. But for the first three years you are probably accurate.

Q So that the limit of judgment is in the last two years?

A That is right.

Q And that is a difficult period?

A That is a very difficult period. The longer you estimate, the more difficult your estimating.

Q And that was the thought you had in answering Mr. MacDonald that 5 years, you thought, was the limit of estimating?

A That is right.

Q There was one thing, Mr. Gellert, I would like you to clear up in regard to Mr. Jones' statement on page 312. This is just a matter of interpretation. Mr. Nolan was questioning Mr. Jones: "Q. Perhaps you would let me know, then, what effect a 30 cent price would have on your estimate?" And Mr. Jones answered: "May I preface my answer with this remark. Our estimate is based on a potential load, providing we can buy gas at a price which will permit us to sell it competitively. Now on the basis of 30 cent gas, that makes it impossible for us to obtain more than about 10 per cent of the firm industrial load." That is the answer I would like you to clarify. As I read it, that means that at 30 cents you would only get 10 per cent of the industrial load which you had put in your submission. Now in further answer to other questions, Mr. Jones, I believe, said that at 30 cents he would retain the estimated interruptible load, the estimated industrial load that he had in his estimate. Just what is the situation?

A Well, every community, as you probably know, has its own problems and it is impossible to compare two gas companies with each other. Our own peculiar situation is such that after investigation and careful study made by our Sales Department, our Engineering Department and our Analysts - and this is the combined work of all three groups - we have

come to the conclusion that in Seattle, if the price is 30 cents, as high as 30 cents, we could get only 10 per cent of the firm industrial load.

Q Would that be 10 per cent of the total available industrial load in the city?

A No. We have figured, and I have always figured, that you have got to take 80 per cent of the total load as the possible load. In other words, it is impossible to get everybody, even if you had a price so cheap it is ridiculous for them to stay with oil. But with 80 per cent of the total load as the possible load we figure we could 10 per cent, which is actually 8 per cent, of the total industrial load in Seattle.

Q Yes, and is that 8 per cent of the total possible load, roughly 9 billion cubic feet, which you have set out in Table 4 of Exhibit 7?

A 9 billion feet is 80 per cent of the total load.

Q That is what I wanted to get.

A It is the possible load.

Q That is the possible load?

A Yes.

Q That is what I wanted to get, and it would be 10 per cent of that that would be available in your opinion?

A Yes.

Q Thank you, Mr. Gellert. Now can you tell me this, what is the cost of manufactured gas in the holder at the present time in your company?

A Well it varies from month to month but in a month like December, with the present cost of oil, it will cost us about 29-9/10ths cents per thousand. Our oil gas.

Q That would be a BTU value of 500?

A 500.

Q And that would give you an equivalent cost of 1000 BTU of approximately 60 cents?

A That is right.

Q Now, can you tell me from your experience in the natural gas industry what would be the range of load factor of average utility companies?

A Well, the average utility company which goes on to natural gas makes an effort to have not less than 70 per cent load factor. But it takes money to build it up and as the price of gas goes up and there is a decrease in the load factor the average utility is eternally making an effort to better its load factor.

(Go to page 507)

Q Well now, would you say then that 70% load factor is what the Utility Company aims to get if it possibly can?

A It aims to get it primarily because as a rule with a load factor much below 70% you can not build a pipeline.

Q I am not talking about pipelines, I am talking about the utility.

A That is what controls load factor.

Q Well, of course, the pipeline has other means of sales than to Utility Companies, it has direct Industrial sales which are handled on possibly an entirely different basis. I am thinking of Utility Companies of the nature of the Pacific Gas Association companies that we have heard here.

A Well, my previous statement stands. We strive to get a 70% load factor.

Q Now, is that the ideal load factor?

A Well, the higher they get the load factor the cheaper their gas. The ideal one would be 100%.

Q Now, could you tell me this too, just as a matter of clarification of Mr. Jones' submission. He sets out the population in the Seattle Metropolitan District as 602,910. Now, is the Metropolitan Area and the area served by the Seattle Gas Company the same?

A Will you give me the reference or the page.

Q Page 6. It is included in the list of selected Metropolitan Districts. It is just above the middle of the page, No. 13.

A I have it. May I ask you, please, to repeat that question?

Q What I wanted to know is this, is the area that is served by the Seattle Gas Company for which you intend to serve in the 5th year of your operation the same area that is referred to

here as the Metropolitan District of Seattle?

A Unfortunately not.

Q It is not?

A It is not.

Q So that the population that is served by your company is somewhat less than that?

A Considerably less.

Q That is all the questions I have, Mr. Gellert.

CROSS-EXAMINATION BY MR. S.B. SMITH:

Q Mr. Gellert, Mr. McDonald a few minutes ago suggested the idea to you that perhaps officials of the Gas Companies which have been in the business of selling manufactured gas were inclined to underestimate the possibilities of markets for natural gas. You disagreed with him on that?

A That is right.

Q And you referred to the fact that you had experience in the natural gas business, but I point out to you that in the case of Seattle your estimated total markets at the end of the 5th year are 13,000,000 and Westcoast's estimate furnished by Messrs. Ford, Bacon & Davis are 13,028,400. Your estimate exceeds theirs apparently in that case. Now, if Mr. McDonald is intending to suggest by that line of questioning that he put to you that you and the officials of your company are not competent to make accurate estimates of markets for natural gas in Seatttle, have you any comment to make on that?

A Well, I do not take his question to mean that.

MR. McDONALD: That certainly was not intended.

MR. C.E. SMITH: Can anybody get into this fight, sir?

Q MR. S.B. SMITH: Well, I would be glad to have you come into it on my side. Well now, Mr. Gellert, the work of preparing the brief which your company has submitted here would seem to indicate that it took a great deal of time and effort in the preparation and a great deal of study?

A It did.

Q As thoroughly done as you and your officials know how to do it, I take it?

A Yes.

Q Do you know anything about how much time Messrs. Ford, Bacon & Davis spent on the survey of the Seattle markets? Can you give us any information on that?

A Well, I can not tell you how much time but they had two men in my office for what I considered an adequate time to work with our men to get the information.

Q How long was that?

A Oh, they were there for several days.

Q Thank you.

CROSS-EXAMINATION BY MR. MARTLAND:

Q Mr. Gellert, the brief which Mr. Jones put in indicates that the population of Seattle has been growing very rapidly. Do you agree with that?

A I agree that the figures indicate that.

Q Do you expect it to stop or do you think it will go on increasing at a rapid rate?

A Well, I would have to gaze in the crystal ball of national and international affairs to give you the answer to that.

Q Well, Mr. Jones gave some reasons here about the friendly and cooperative spirit, unexcelled transportation and world-wide markets. Do you think those are adequate grounds for thinking that Seattle may grow pretty rapidly?

A They helped get me there.

Q And you estimate at the end of 5 full years of natural gas you are going to be requiring a total send out in the vicinity of 15 billion cubic feet per year?

A That is including unaccounted gas.

Q Including unaccounted gas?

A Yes.

Q You would agree that the likelihood is that in the 15 or 20 years following that figure is likely to increase substantially?

A I should think it would increase but how much would be a guess, and at any rate it would be on a much flattened curve after the first 5 years.

Q Not as rapidly but there would be an increase?

A That is right.

CROSS-EXAMINATION BY MR. C.E. SMITH:

Q Mr. Gellert, is the B.C. Electric, whatever their proper name is, a member of your organization?

A Of the Pacific Coast Gas Association?

Q Yes?

A It is.

Q So that I take it every company that has been represented here by a witness is a member of your Association, is that correct?

A That is right.

Q And do you know whether or not the Association itself has received the estimates put in by applicants to date with respect to reserves of gas in Alberta?

A I am quite sure it has not.

Q Well, has it been made available to you either directly by the applicant or through a transcript here being made available to you?

A You mean, to the individual?

Q To the Association first?

A I am positive the Association has not any information from anybody.

Q Well then, has your own company received such information?

A Oh yes, we have received information.

Q And would it be true to say this, that if you reached the point where you are negotiating a contract with a pipeline company that you would want your own independent estimates made by your own people, that is, geologists or whoever you want, before accepting reserves?

A No, that is, I think, a little further than we would find it necessary to go.

Q You heard some other witness suggest that he would like to go that far. I have forgotten who it is now.

A I do not remember who it was. I heard it. I do not quite agree with him.

Q Well, in other words, the Association at the moment in any event has not as yet contemplated employing independent geologists with respect to the question of reserves of gas in Alberta?

A Well, Mr. Smith, the Association hasn't anything to do with this problem at all.

Q Well, I would think you would be vitally interested in it as an Association. Maybe you have not got any money. I don't know how you operate?

A That is not the point. You see, the companies which are not interested in Alberta gas are far in the greater number, and they consist of those of the greatest size, like Southern California Gas Company, the Pacific Gas & Electric.

Q I assumed, because you were called in a dual capacity, one of them being President of the Association, that the Association was vitally interested in this, but you say only a portion of it is?

A Only a portion. I hope it is understood I am not appearing here officially as the President of the Pacific Coast Gas Association.

Q Well, maybe it is a good thing I asked you that for certainly I assumed you were.

A Well, I am not.

Q Maybe others had too. Well, however, that is probably by the way. In any event, as far as your own company is concerned, you do not feel that you would need to go as far as Mr. - - do you remember who it was who said he would like his own independent estimate?

A I am not sure whether it was Mr. Bell.

Q I think it was.

A He just shook his head. Yes, so it was Mr. Bell. Well, I do not quite go as far as he does. I would like to make a statement, if you would like to have me do so.

Q Well, go ahead, say what you like, Mr. Gellert.

A As I said before, all business is done on the basis of considered risks and no business is entirely free from uncertainty. What could be considered as adequate reserves is such an uncertainty. For our part we will consider reserves to be sufficiently adequate for us to convert our system from manufactured to natural gas if, first, the Petroleum and Natural Gas Conservation Board determines that the proven, probably and potential reserves of the Province are sufficient to take care of the needs of Alberta, and in addition, issues an export license to a pipeline company organized and able to buy and convey such surplus gas to the gas companies of British Columbia and the States of Washington and Oregon, and second, when the reserves so established make possible the financing of such a pipeline by a reputable banking or investment house. We would indeed consider the risk to be slight or even negligible after an expenditure of eighty to one hundred millions had been made for a pipeline under the conditions I have just outlined.

Q Well, I can not follow all that at the moment, but let me ask you this. Your attitude with respect to reserves, as I take it, is similar to the attitude of say a trustee of other people's money if they are going to make an investment in such a situation as this. Is that a fair way of putting it?

A Yes, sir.

Q In other words, if you are going to invest other people's money here you would want to have such information with regard to reserves as would allow you to say to yourself,

"I as trustee can put money in that situation"?

A That is correct.

Q Is that a fair way of putting it?

A I think it is a very fair way of putting it.

Q I did not follow your first statement. I notice you read it.

A Well, I sat down and thought I would clarify my mind last night and put it on a piece of paper.

Q I mean, it is not something you put in as an exhibit?

A No, it is in my own longhand. I wrote it last night. Rather than fumble around today I thought I would write it out.

Q Would you mind repeating, Mr. Gellert, what you said about the Board determining?

A If that was one of the two things that would convince us of adequate reserves, then that was the first. The Petroleum and Natural Gas Conservation Board determines that the proven, probable and potential reserves of the Province are sufficient to take care of the needs of Alberta, and in addition issues an export license to a pipeline company organized and able to buy and convey such surplus gas to the gas companies of British Columbia and the States of Washington and Oregon.

Q May I go further with you, are you in a position to give this Board any idea what you mean by proven, probable and potential, Mr. Gellert?

A No, sir. When the Board makes that decision I will accept the Board's opinion.

Q Like some other people you say, "There you are, Mr. Board, and if you go wrong, look out."

A Well, I do not have any experts to testify or investigate

for me.

Q So you think your position would not be quite the same as applicants, but you have not any anyway?

A We have none.

(Go to page 516)

MR.MacDONALD: Could I ask another question arising out of the last statement, sir?

THE CHAIRMAN: Yes.

.....

CROSS-EXAMINATION BY MR. MACDONALD:

Q I just want it clear, Mr.Gellert, and incidentally in case you should not be able to identify me in this mass of Counsel, I am one of the lawyers from the City of Edmonton, and I just wanted to ask you about this $80,000,000.00 to $100,000,000.00 figure and to tie it in with the statement you made with regard to the banking or investment houses who would underwrite and provide the necessary capital for such expansion. If I understood you correctly, and I only raise it to make certain that I did, if I understood you correctly,your point was that just as you would rely upon the judgment of the Board in the matter to assess the reserves and grant an export permit, so, too, you are prepared to rely in turn upon the judgment of the investment and banking concerns who will build the pipeline? In other words, if the Board, followed by the underwriters of the project, are satisfied, that is two reasons why you do not think that there is any need for you to conduct an independent survey, is that a fair statement?

A That is a fair statement with the introduction of one word "reputable".

Q In other words...

A Reputable investment.

Q By that, I take it that you want to be assured that no one who has been at any time in your experience engaged in any promotion that is not examinable by high business standards

is involved in any way in it?

A That is right.

Q Yes. And, finally, this figure of $80,000,000.00 to $100,000,000.00, is that your considered estimate of what it would probably cost to build such a pipeline?

A That is what I have read in the newspapers so far.

Q Thank you.

.....

DIRECT EXAMINATION BY MR. NOLAN:

Q Mr. Gellert, when you and I were discussing the question of your Association, perhaps I did not make it clear, there are a number of other companies all down the Pacific Coast down into California?

A That is right.

Q Many of whom, I take it, are engaged in the distribution of natural gas?

A Most of them.

Q Most of them?

A Yes.

Q I also did not ask you in respect of the 30, 35 and 40 cent computations, when were you asked to do them?

A When was I asked to do them?

Q Yes? It was some time ago, wasn't it?

A Yes, a month or two months, something like that.

Q Did I understand you to say that it was very difficult to compare the operation of two gas companies because of the different conditions that exist in different communities?

A That is true.

Q Would one of those conditions be changed widely by the cost price of fuel oil?

A That would be a very important one.

Q For example, in Seattle you would pay less than in Spokane?

A Very much less.

Q Because of the transportation charges which must be added to the price in Spokane?

A That is right.

Q All right, thank you.

Q DR. GOVIER: Mr.Gellert, may I ask you two of three questions? One is in connection with the evidence given the other day by Mr. Jones.

MR.NOLAN: Would you give me the page, sir?

DR. GOVIER: Yes, I refer to page 312 of Volume 5.

THE CHAIRMAN: It is on page 19 of Exhibit 7.

DR. GOVIER: Now, this particular question will deal with the information brought out in your direct examination of Mr. Jones, Mr.Nolan.

MR NOLAN: Yes.

Q DR. GOVIER: On Page 312 of Volume 5, Mr. Nolan asked Mr. Jones as to what would be the effect of assuming a price of gas of 35 cents. That is near the bottom of the page, Mr.Gellert. "Well, now, assuming the price of 35 cents"?

A Yes.

Q Mr. Jones' reply was, "We will lose practically all of the firm industrial load and the interruptible load becomes questionable. The chances are we could retain it."
What I would like to ask you, Mr.Gellert, is why is it that it is the firm industrial load that would be lost before the interruptible load?

A Well, in our particular position, where oil comes in in tankers,

the large industries with large oil storage capacities are able to get an exceedingly low price, to get oil at an exceedingly low price. They would be the ones who would be on the interruptible.

Q Yes?

A But the others, because of the tanker condition, and large facilities in the area, carry a small amount over that low price, so that the spread between the firm load and the interruptible is not as great where you have what is a seaport delivery. Now, the firm load has got to carry taxes, all the distribution costs, the overhead, and everything else. The interruptible load is what we call a marginal load and does not bear that. The result would be at 35 cents that so much would have to be added that it would be in the position where it would not be in competition with oil on the firm, and so little would be added in the interruptible that we would possibly get at 35 cents, that we are not quite sure we could get it.

Q Which means that your position in Seattle is different than the position of the British Columbia Electric Company, and that presented by Mr. Cook for the Portland Gas Company?

A It is different.

Q It is just the opposite?

A That is right.

Q MR.NOLAN: Before that topic is left, might I ask the witness a question?

THE CHAIRMAN: Yes.

Q MR.NOLAN: Do I understand you to say, or to mean, Mr. Gellert, that you charge more for the firm industrial users than you do the interruptible industrial

users?

A Yes, sir.

Q DR. GOVIER: One other thing, Mr. Gellert, you mentioned that there was considerable uncertainty in estimating market requirements beyond 5 years, and that for your part you would not permit such an estimate to be made by your company?

A It would be pure crystal-gazing.

Q Suppose, Mr. Gellert, you were in the position of one of the Alberta companies and you were faced with the problem of estimating Alberta's requirements for 20, 30 or 50 years, what would you do?

A I would put the proviso on after 5 years, "Of this I am pretty sure, but I am unsteady about the other 15."

Q I wondered if you could make any suggestions to the Board which might be helpful to us in our problem of reviewing the estimates that are being made for Alberta far into the future?

A I can only give you something out of my own experience.

Q Well, we would appreciate having it.

A In the State of Michigan I was the first one to convert a manufactured gas plant to natural gas, and Consumers' Power immediately followed me. We both converted on what was expected by both of us as thoroughly inadequate reserves to carry for 10 years, and that was in the year of 1931, I think. To-day, of course,there is still gas in Michigan, but so much has been hooked on that the reserves today are greater in Michigan than they were when I first started. One field has been depleted and is being used as a great reservoir for Texas gas, and the whole development of gas

in Michigan has been tremendous. I can tell you of another experience where we operated our own fields for nearly 30 some years, and there are more reserves in those fields now than when I first took the property over and started to run it, and at the time I took it over we had inadequate reserves to run the property.

Q One other comment of yours interested me, Mr.Gellert. You mentioned that with a load factor of much below 70% you could not build a pipeline. I believe that was your expression. I wonder if you would elaborate on that a little bit?

A Well, a load factor simply is an index of how often your pipe is full and how often it lies idle. It is like a railroad, unless the train ran over a certain number of miles in a given time, the railroad would not pay. A load factor is just that kind of an index. And when you get a load factor down to 50, or 40, or somewhere around there, there have to be very unusual conditions on long distance pipelines, I am talking about long distance lines, I do not mean short pipelines of 30 miles or 100 miles, but long ones, and you have quite a problem of making it up.

Q Would you care to give the Board any indication of what, in your opinion, would be a minimum pipeline load factor for a transmission line from Alberta to the Pacific Northwest?

A Well, Doctor, it would not be a matter of opinion. I would have to sit down and figure the cost of the pipeline and determine how much gas it would have to put through to pay. That is a complicated engineering calculation that can be made.

Q I realize that, but it can be calculated?

A Yes.

Q I wondered if, from your experience, you could tell us if the load factor was less than 50% that the line could not be economical, or if it were less than 40% it could not be economical? Perhaps that is an unfair question, Mr. Gellert?

A Well, what I said about gas companies is also true about pipelines. Here is a pipeline in an entirely new area, different from all other pipelines, like the Texas lines. I think it would be just a wild guess.

Q Thank you very much.

.....

CROSS-EXAMINATION BY MR.MACDONALD:

Q If I might ask a further question. I am trying to get the general picture. The Michigan field, sir, to which you referred as one of your earlier experiences with this business, did have a gathering system or a grid system as soon as export began?

A Well, there never was any export out of Michigan.

Q Oh, yes.

A And at the beginning we just laid independent lines, but eventually there was a grid system over the State.

Q Did that precede the commencement of export?

A There never has been export.

Q There has never been any export?

A No.

Q I see. So that there is a gas gathering or grid system which is internal to Michigan?

A That is right.

Q I see. In your experience, sir, - this was the question I wanted to get clear in my mind - in your experience is export possible without a grid or gathering system, would you care to say?

A Well, I think it is possible. That is a pretty broad statement.

Q Yes?

A There are so many things that are possible.

Q Quite. You put your finger on the point. Well, then, let us say, is it a businesslike proposition?

A I would not be able to give a worthwhile answer to that unless I studied....

Q A particular area?

A A particular area.

Q Yes. Well, have you made such a study of the Alberta area?

A No, I have not.

Q Thanks.

Q MR. C. E. SMITH: At least you have got to get it into your pipe somehow?

A That is right.

Q THE CHAIRMAN: Mr.Gellert, on Page 19 of Exhibit Number 7, you state that "Working on the basis of establishing a 70% load factor for the Seattle Gas Company natural gas requirements, the load was divided into firm and interruptible classifications." Was that an arbitrary figure that was taken, or was some study made of it?

A No. We take the interruptible up to the limit of our capacity beyond which it is not profitable. The amount of the firm load we get is what we can get, and the interruptible is what we choose to put on.

Q In your case here, in the Seattle Gas Company, the interruptible load is considerably less than the firm load, and I think in some of the others the position was reversed?

A Yes. It does not mean that there could not be some more interruptible obtained.

Q Yes?

A But we are all aiming for 70% load factor, and we put that in. I imagine we could get 50% more than that if we went after it, but we would have to be sure that it would be a paying load.

(Go to page 525).

Q That would give you a better load factor still, would it not?

A It would give us a better load factor but it might entail an expenditure of hundreds of thousands and maybe millions of dollars in additional distributional facilities. Those are all factors.

Q It is a conservative consideration on your part?

A The firm is established and then we take that from the interruptible and that would give us 70 per cent load factor.

Q That is, you compute the amount of the potential industrial load for this year and you take 80 per cent of that and split that 80 per cent up and that gives you the 70 per cent load factor?

A No, that is not quite what I am saying. The firm, or what we know can be firm, is the load that at the prices stated could be current all throughout the year. Then we take that part of the additional load that we can get as interruptible and it gives us a 70 per cent load factor.

Q I do not think the statement here would indicate that. It gives the impression you simply made an arbitrary division there to get the 70 per cent load factor?

A I am sorry it was not done that way.

Q BY MR. NOLAN: As I understand it, in the gas business, Mr. Gellert, you go out to get as much of the firm business as you possibly can?

A That is right.

Q That is the backbone of the business?

A That is right.

Q And the interruptible, that is what shall we say, how would you describe it to me? That is additional

business?

A Well, we call that the incremental load, enough to build up our pull on the pipe line to get them a better load so that they can give us a lower demand charge that affects all the rest of our gas.

Q So that in turn that gas can be sold for lesser money?

A That is right.

Q Thank you.

MR. NOLAN: I think that is all Mr. Gellert has to say, sir. Might I just consider my position for a moment in the light of the hour? My friend Mr. MacDonald from Edmonton asked me a day or two ago if, at a convenient moment, I would permit him to put in a very, very short statement that he has prepared on behalf of the City of Edmonton. I know he is anxious to leave Calgary today and perhaps this would be the moment to put it in.

MR. C. E. SMITH: I wonder if I should not bring something to the attention of the Board. I rather gather Mr. MacDonald intends to read from the counsel table a submission. We had in another application a submission made by the Attorney General for British Columbia. That was made with the permission of the Board, I think as a matter of courtesy to a distinguished man from another Province, a Governmental Cabinet Minister, without objection and with the agreement of all counsel. After he made his statement, which we had assumed would be something to the effect that B. C. would like our gas if there was enough gas to use, the gentleman on my left found that he had said something more than they assumed he was going to say, and wanted to ask some

questions, which they could not do because he was not in the witness box. Mr. Nolan was not here then but Mr. Chambers was. I am doubtful if the Board wants to establish any precedent along this line. But I do not want to cross-examine Mr. MacDonald about something in here. I would like to ask questions about one or two statements in here and other counsel might want to ask some questions on this. But they are left in the air. They have nobody to ask. I wonder if other counsel have considered it. I will be aggreeable if they are all agreeable, but I do not think the Board should be left in the position of where we set a precedent of people coming in and just saying "Here is something I want to read." We had at the outset some rules and I would like to adhere to them.

MR. NOLAN: I was going to say, sir, that I would like to make it clear that this particular submission forms no part of my evidence on my application. All I was endeavouring to do was to provide those necessary minutes in order to enable my friend to put it in. As to the manner of its presentation I have nothing to say.

MR. S. B. SMITH: I would like very much to accommodate Mr. MacDonald, personally, but I have not even seen his submission.

MR. MacDONALD: Now, sir, in the first place, answering Mr. Bruce Smith, I might state that the City Council instructed its solicitors to prepare a submission and what was prepared was shown to the City Commissioners, vetted by them and approved before it was brought here. Since then, as I have sat here this week, learning little bits of this and that I have felt it desirable, and I have

clarified it, perhaps strengthening it, I would not know, but at any rate in some respects changing the submission. I therefore found it necessary that I should check with Edmonton before I made any changes and Edmonton has approved these changes. However, sir, if it is the wish of your Board, through Mr. Smith or yourself, that we follow another technique we naturally cannot say no. I take it that as the submission of the City of Edmonton, approved of by the City Council, will not take more than a total of 20 minutes, that is the reading of it, I am not speaking of cross-examination, presumably the Board would be agreeable if we formally applied to have heard that 20 minute submission at the conclusion of the whole of the submission of Mr. Nolan and his associates. In other words, I cannot conceive that it would embarrass it or in any way any other submission that might be following weeks later. If you would prefer we would do that the City of Edmonton will do that. As to the manner of its presentation and speaking to Mr. Smith's point, would you wish to have one of the City Commissioners here present who might himself read that and who will then be available for cross-examination? If so, we will do that. We are in your hands.

MR. C. E. SMITH: I do not know why Mr. MacDonald should ask the Board to ask them to do this and that and so on, if they have anything that they wish to put before the Board. All I am suggesting is the way they should do it. It should be done by producing a witness who can be cross-examined - I do not like the word "cross-examined", but say just "examined" - by other counsel. I am not trying to say Edmonton should not be heard and I do not want to get

into Calgary v. Edmonton, but I think they should adopt a particular procedure, just as anybody else who wants to give information to this Board. I think it can be easily done as Mr. MacDonald suggests, he could very well do it, he could have one of the Commissioners or one of the people mentioned in this brief called and then he might be available for examination. He might not be able to answer a lot of the questions but at least we can ask him them. But I do not think Mr. MacDonald should ask you, the Board, to direct them and say they should do this that way or this way. There is a method of procedure which we have adopted and let us follow that. That is all I suggest.

MR. McDONALD: The answer, I think, to that is there is a method where people are giving technical evidence. The City of Edmonton has no technical evidence to give. What it gives is an opinion and it gives these opinions because it is interested in protecting the consumers and the consumers only.

MR. C. E. SMITH: You are getting your case in now. Maybe I should keep quiet.

MR. S. B. SMITH: I support Mr. Smith's remarks and I do so for this reason. In the last two years before the Board of Transport Commissioners and the Railway Commission Inquiry into transportation, I believe invariably the practice has been followed in those two Boards that if a submission is to be made, it has to be made from the witness stand so that the witness can be examined. Then at the conclusion of the hearings presumably there will be opportunities for argument but at this stage submissions are submissions primarily of fact.

MR. MacDONALD: While my friend Mr. Smith has perhaps suggested that it was unfair of us to ask you to make a direction, I will say this, if Mr. Smith or yourself would like us to do it in the manner suggested I will undertake to see that at some time convenient to you this submission of the City is put in through the mouth of some City official, other than one of the City's legal staff. Do you prefer that?

THE CHAIRMAN: That would probably be better.

MR. MacDONALD: All right. Now may I ask when would it be convenient for us to put in that submission, which I repeat will be very brief? Would it be convenient to put it in at the termination of the submissions made during this period by the present applicant?

THE CHAIRMAN: Yes, that would be towards the latter part of next week.

MR. MacDONALD: Yes, sir. Or perhaps even, perhaps the week after this coming week? I think we can arrange a time with Mr. Nolan.

MR. NOLAN: We will have to make it clear, sir, that I do not think this application, with what we have available, will be going into the third week. I believe also that other arrangements have been made for that week by the Board. I do not want Mr. MacDonald to think it may be later than Friday week.

THE CHAIRMAN: No. You will let us know at the beginning of the week, then, if the City of Edmonton is prepared to send a Commissioner down, say the latter part of next week, to present its brief and be subect to examination?

MR. MacDONALD: Yes, sir. I do not think there

is any doubt, however, that having regard to the importance of the matter that there will be one here. May I say, sir, that I wish to thank Mr. Nolan and his associates very much for the courtesy which he was prepared to give us to put it in?

THE CHAIRMAN: Then we will adjourn.

(At this stage the Hearing was adjourned until Tuesday, June 6th, 1950 at 9.30 A.M.)